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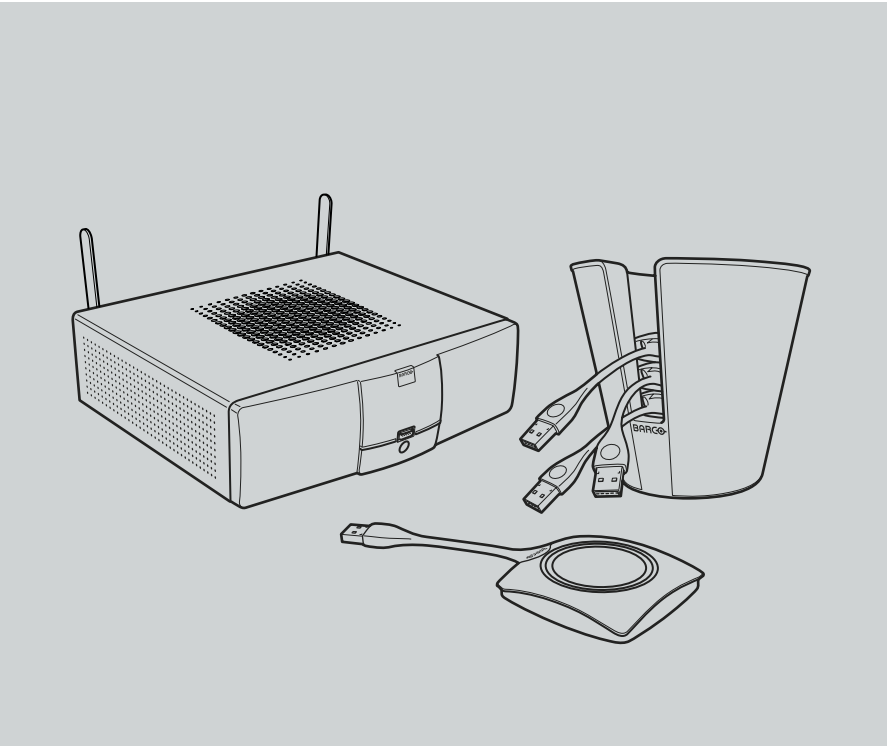

Installation Guide

R5900004/06
23/12/2014

BARCO

Visibly yours

Barco nv
President Kennedypark 35, 8500 Kortrijk, Belgium
Phone: +32 56.23.32.11
Fax: +32 56.26.22.62
Support: www.barco.com/esupport
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EN55022/CISPR22 Class A ITE (Information Technology Equipment)

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:

Warning : This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Federal Communication Commission Interference Statement

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

If this equipment does cause interference with radio communications services, which can be determined by turning the equipment off and on, you are encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation of the device.

FCC RF Radiation Exposure Statement: This device is capable of operating in 802.11a mode. For 802.11a devices operating in the frequency range of 5.15 - 5.25 GHz, they are restricted for indoor operations to reduce any potential harmful interference for Mobile Satellite Services (MSS) in the US. WIFI Access Points that are capable of allowing your device to operate in 802.11a mode (5 .15 - 5.25 GHz band) are optimized for indoor use only. If your WIFI network is capable of operating in this mode, please restrict your WIFI use indoors to not violate federal regulations to protect Mobile Satellite Services.

Base Unit FFC ID: RYK-WPEA-121N

Button FCC ID: 2AAED-CLSBTN

Compliance Anatel (Brasil)

1. Este produto está homologado pela Anatel, de acordo com os procedimentos regulamentados pela Resolução nº 242/2000, e atende aos requisitos técnicos aplicados, incluindo os limites de exposição da taxa de absorção específica referente a campos elétricos, magnéticos e eletromagnéticos de radiofreqüência de acordo com as resoluções nº 303/2002 e 533/2009. Para maiores informações, consulte o site da Anatel - www.anatel.gov.br
2. Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.

Canada, Industry Canada (IC) Notices

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Radio Frequency (RF) Exposure Information

The radiated output power of the Barco Wireless Device is below the Industry Canada (IC) radio frequency exposure limits. The Barco Wireless Device should be used in such a manner such that the potential for human contact during normal operation is minimized.

Base Unit IC ID: IC: 4104 A-AR5BHB116

Button IC ID: 9393B-CLSBTN

IC Antenna statement

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter 4104 A-AR5BHB116 has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Type: Dipole

Maximum Peak Gain: 2 dBi

Impedance: 50 Ohm

Canada, avis d'Industry Canada (IC)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Informations concernant l'exposition aux fréquences radio (RF)

La puissance de sortie émise par l'appareil de sans fil Barco est inférieure à la limite d'exposition aux fréquences radio d'Industry Canada (IC). Utilisez l'appareil de sans fil Barco de façon à minimiser les contacts humains lors du fonctionnement normal.

IC ID Unité de Base: 4104 A-AR5BHB116

IC ID Button : 9393B-CLSBTN

Déclaration d'antenne d'Industrie Canada (IC)

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent émetteur radio 4104 A-AR5BHB116 a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Type: Dipole

Gain maximum: 2 dBi

Impédance: 50 Ohm

根據NCC低功率電波輻射性電機管理辦法 規定

第十二條	經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
第十四條	低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。 前項合法通信，指依電信法規定作業之無線電通信。 低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

底座 CCAF11LP0930T5

按鈕 CCAJ13LP1890T2

KCC Statement

기본 장치	등록번호 KCC-RMM-BVY-CLICKBASE 기자재의 명칭 : 무선데이터통신시스템용 무선기기 모델명 : CLICKSHARE-BASE 본 기기는 내부에 인증 받은 무선모듈(인증번호 : ATH-AR5BHB116)을 내장하고 있음 본 기기와 20 cm 이상 떨어져서 사용하시기 바랍니다
버튼	등록번호 KCC-CRM-BVY-CLICKBUTTON 기자재의 명칭 : 특정소출력 무선기기(무선데이터통신시스템용 무선기기) 모델명 : CLICKSHARE-BUTTON

사용자안내문

A급 기기 (업무용 방송통신기자재)

이 기기는 업무용(A급) 전자파적합기기로서 판매자 또는 사용자는 이 점을 주의하시기 바라며,

가정외의 지역에서 사용하는 것을 목적으로 합니다.

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1. INTRODUCTION TO THE INSTALLATION GUIDE

In this section you get a short introduction to the available ClickShare documentation.

- About this Guide
- About the documentation
- Symbols and fonts

1.1 About this Guide

Version

Partnumber	Description	Level
R5900004	Installation Guide	Installation engineer

Always check for the latest version of the manual on www.barco.com/clickshare Click on Visit the ClickShare product page and go to tab Downloads..

Depending on the version of your ClickShare, some graphics might be different to the ones used in this manual. This however does not have any effect on the functionality.

1.2 About the documentation

List of available ClickShare documents

The ClickShare documentation consists of the following manuals:

Guide	Article number
User Guide	R5900001
Quick Start Guide	R5900002
Installation Guide	R5900004
Safety Guide	R5900005
Service Guide	R5900006
Button Guide	R5900007
Rack Mount Guide	R5900008
Recycling Manual	R5900009
API Guide	R5900018

A printed copy of the Safety Guide and the Quick Start Guide is included in the ClickShare box at purchase. Please check www.barco.com/clickshare. for the other documents. Click on Visit the ClickShare product page and go to tab Downloads.

This installation guide explains how to install ClickShare in a meeting room and how to use ClickShare Link in combination with an iPad; It explains also how to make everything operational. It provides detailed information on how to configure ClickShare.

1.3 Symbols and fonts

Symbol overview

The following icons are used in the manual :

	Caution
	Warning
	Info, term definition. General info about the term
	Note: gives extra information about the described subject
	Tip: gives extra advice about the described subject

Font overview

- Buttons are indicated in bold, e.g. **OK**.
- Menu items are indicated in *italic*.
- Step related notes, tips, warnings or cautions are printed in *italic*.
- Procedure related notes, tips, warnings or cautions are printed in **bold** between 2 lines preceded by the corresponding icon.

2. CLICKSHARE SPECIFICATIONS

About this chapter

It gives an overview the specifications of a ClickShare set and of the different components in the set.

Overview

- About the ClickShare product
- ClickShare specifications
- ClickShare Link specifications
- About the Base Unit
- About the Button
- About the Tray
- Mobile Device Support

2.1 About the ClickShare product

ClickShare sets

ClickShare makes connecting to the meeting room's video system a matter of clicking a Button. This one click wonder not only helps the presenter get the presentation on-screen in a second, but it also allows the other people in the meeting to participate more actively. The result is enhanced meeting efficiency and better decision-making.

At the moment 4 different sets are available on the market. Each set is sold in its specific region and it can only be used in that specific region.

Components ClickShare set

A standard ClickShare set consists of a Base Unit, a Tray and 4 Buttons. Depending on the location where you buy the product, the software of the Base Unit is different. If needed, you can buy additional Buttons and Trays.

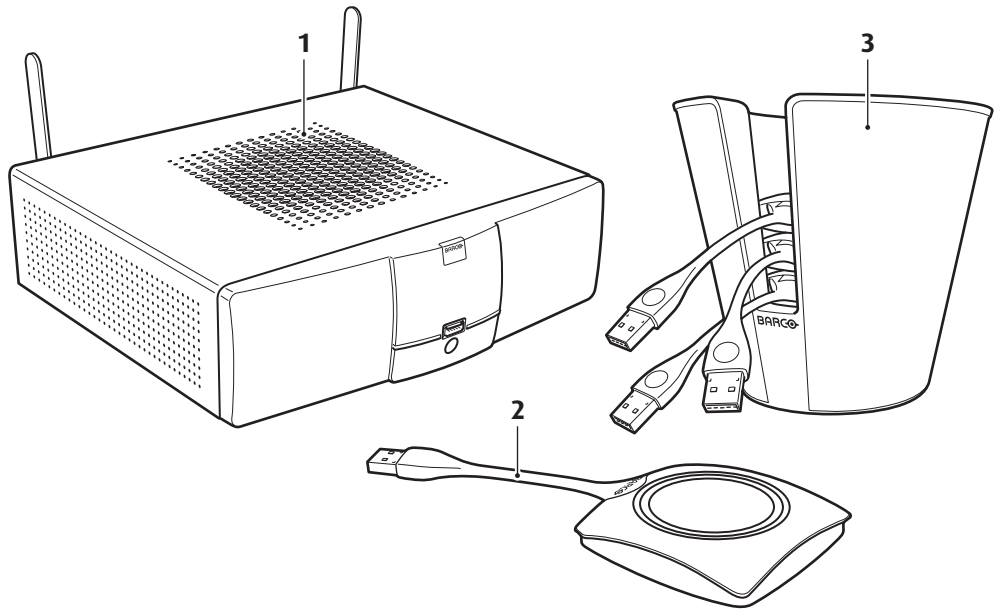


Image 2-1
ClickShare main components

1	Base unit
2	Button
3	Tray

Accessories included

Depending on the country where you buy the product, the following regionalized accessories are also included in the ClickShare box.

Regional version	Contains	Accessories included
R9861005EU	• R9861006BEU • 4x R9861006D01 • R9861006T01	• power cables CEE7 and BS 1363 • wall/ceiling mounting brackets • a DVI to VGA converter
R9861005JP	• R9861006BJP • 4x R9861006D01 • R9861006T01	• power cable JIS C8303 • wall/ceiling mounting brackets • a DVI to VGA converter
R9861005CN	• R9861006BCN • 4x R9861006D01 • R9861006T01	• power cable GB 2099 • wall/ceiling mounting brackets • a DVI to VGA converter
R9861005NA	• R9861006BNA • 4x R9861006D01 • R9861006T01	• power cable NEMA 5/15 • wall/ceiling mounting brackets • a DVI to VGA converter
R9861005WW	• R9861006BEU • 4x R9861006D01 • R9861006T01	• power cables CEE7 and BS 1363 • wall/ceiling mounting brackets • a DVI to VGA converter

Contact your local sales representative for the correct regional variant to be used in your country.

Optional accessory: ClickShare Link

Order number: R9861001

Image 2-2
ClickShare Link

Using the optional ClickShare Link allows you to use your iPad with ClickShare.

Via a cable or wireless via Apple TV, the complete content of your iPad touchscreen is transferred to the meeting room screen

A ClickShare Link kit contains:

- 1 ClickShare Link unit
- 1 DVI to HDMI convertor
- 1 power adapter
- 4 power clips
- 1 USB cable

2.2 ClickShare specifications

Overview

Dimensions (HxWxD)	181mm (incl. antennas) x 260mm x 276mm (Min.) / 7.125” (incl. antennas) x 10.236” x 10.9” (Min.)
Weight	2.6 kg/5.75 lb

Lifetime	MTBF = 40,000h (90% confidence level) MTBF = 100,000h (60% confidence level) MTBF conditions: • Environment: Ground Benign • Temperature: 25°C • Method: MIL-HDBK-217F Notice 2 </ul
Altitude	Max 3000m (9842 ft)
Humidity	Storage: 0 to 90% relative humidity, non-condensing Operation: 0 to 85% relative humidity, non-condensing
Temperature range	Operating: +5°C to +40°C (+41°F to +104°F) Storage: -20°C to +60°C (–4°F to +140°F)
Connections	1x Ethernet LAN 4x (back) + 1x (front) USB Analog line out on mini jack socket (3.5mm) Analog line in on mini jack socket (3.5mm)
Band	2.4 GHZ and 5 GHz
Reach	Max. 30m (100 ft) between ClickShare Button and ClickShare Base Unit
Data rate wireless	Up to 300Mbps
Wireless transmission protocol	IEEE 802.11 a/g/n
Encryption	AES CCMP
Authentication protocol	WPA2-PSK
iPad, iPhone and Android compatibility	Available via ClickShare Presenter app for static content. For iOS devices, the optional ClickShare Link and AppleTV (version 3 or higher) can be used to show dynamic content, from ClickShare CSC Base Unit software v01.02.00.09 onwards
Audio	Analog audio from ClickShare CSC Base Unit software v01.02.00.09 onwards Digital audio (embedded in DP signal) from ClickShare CSC Base Unit software v01.05.00.32 onwards
Number of simultaneous connections	64
Number of sources simultaneous on screen	4
Noise Level	Max. 28dBA
Input Resolutions	Up to 2880x1800
Output resolution	DVI WUXGA (1920x1200) DisplayPort panoramic format (2560x1600) available from ClickShare CSC Base Unit software v01.02.00.09 onwards
Frame rate	Up to 30 fps (from software version V1.03.00.0001 onwards)
Video outputs	DisplayPort, Single link DVI-I VGA (via included convertor, highest resolutions only with reduced blanking) In "Dual screen" mode, connection can occur either through DVI and DisplayPort, or through VGA and DisplayPort.
Operating system	Windows XP/Vista/7/8/8.1 32 & 64 bit Mac OSX 10.6/10.7/10.8/10.9 Android 2.2 and later (ClickShare Presenter app) iOS 5.0 and later (ClickShare Presenter app)

Warranty	3 years standard
System requirements	**PC minimum requirements:** CPU: Intel Pentium Dual Core E2140 – 2 * 1600 Mhz (or equivalent: AMD Athlon 64 X2 3800+ - 2 * 2000 Mhz) Memory: 1024 MB RAM OS: Windows XP Pro/Home (SP3) (Windows Vista/7 supported, but requires more RAM) **PC recommended requirements:** CPU: Intel Core 2 Duo E4600 – 2 * 2400 Mhz (or equivalent: AMD Athlon 64 X2 4800+ - 2 * 2500 Mhz) Memory:2048 MB RAM OS: Windows XP Pro/Home, Windows Vista, Windows 7, Windows 8 **MAC** CPU: Intel Core 2 Duo Memory: 2048 MB RAM OS: Mac OS X 10.6, 10.7, 10.8

2.3 ClickShare Link specifications

Overview

Dimensions	116 mm x 60 mm x 23 mm (4.57” x 2.36” x 0.91”)
Weight	< 250g
Connection with Base Unit	USB
Video Input	Single link DVI
Video Output	USB mini type B
Power	Using external power adaptor (included in the package): • DC output: 5V, 2A • AC input: 100-240V, 50-60 Hz, 0.36A • Wall-plug type • Included AC clips: types A, C, G and I for world wide coverage
Power consumption	Maximum 5W
iPad, iPhone and Android compatibility	Support for iPad via cable or Apple TV HDMI and/or DVI cable not included in the package
Audio	No audio
HDCP	Not supported
Weight	170 g
Included in the package	• HDMI to DVI convertor • 3ft USB cable • DC adaptor • ClickShare Link

2.4 About the Base Unit

Base Unit

The Base Unit receives the wireless input from the Buttons and controls the content of the meeting room display and the sound of the meeting room’s audio system.

The Base Unit can be installed in three different ways.

Front layout of the Base Unit

At the front of the Base Unit you can find a standby button, status LED strips and a USB port.

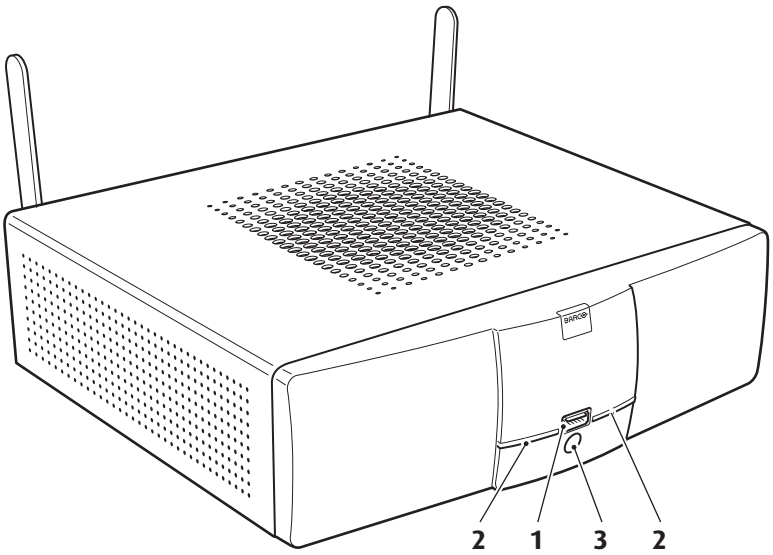


Image 2-3
Base Unit

1	USB port
2	Status LED strip
3	Standby button

Table 2-3

USB port

The USB port is used to update the software of both the Base Unit and the Buttons.

When plugging in the Button into the Base Unit, the Button is paired to the Base Unit. The Base Unit checks whether the Button's software and firmware are up to date. If not, the Base Unit updates the software and/or firmware.

To update the Base Unit software, download the latest version of the software from the Barco website. Copy the file on a USB stick and plug it into the USB port of the Base Unit. Follow the progress and instructions on the display.

Status LED strips

The color of the LEDs at the front of the Base Unit give information on the status of the system.

LEDs behavior	Explanation
static red	• receiving content from the Buttons and streaming towards the display. • pairing and software update of the Button is done. You can now unplug the Button from the Base Unit. • during the first phase of the Base Unit boot process.
blinking white	• system is starting up (during the second phase) • Button pairing is in progress • software update of the Base Unit
slow blinking white	• standby mode (i.e. muting the display output)
static white	• awake and ready (i.e. showing the welcome message on the display) • pairing is done
red blinking	• an error occurred

Standby button

The button at the front of the Base Unit has a power on/off function and a standby function.

- When the system is awake, a short push triggers the system to go into standby mode.
- When the system is in standby mode, a short push triggers the system to wake up.
- When the system is powered on, a long push makes the system to shut down and power off.
- When the system is shut down, a long push or short push triggers the system to start up.

Back layout of the Base Unit

At the back of the Base Unit you can find the rocker switch, the label, the ports and connectors of the Base Unit.

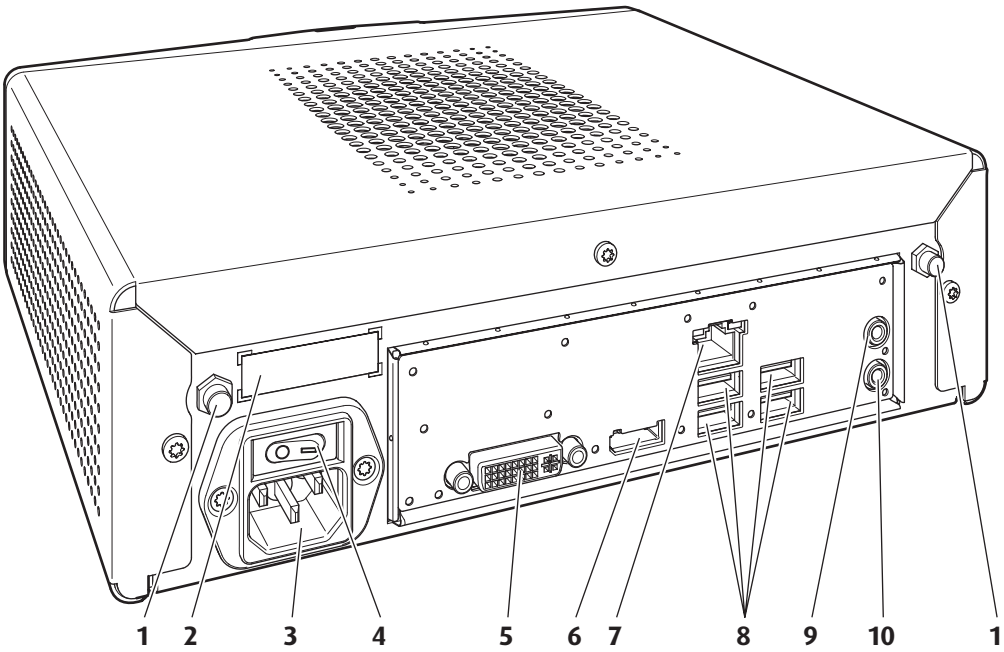


Image 2-4
Backside of the Base Unit

1	Fixture points for the antenna
2	Label containing the article number and power rating of the product
3	Mains power connector
4	Rocker switch
5	DVI-I display connector
6	DisplayPort connector
7	LAN Ethernet connection
8	4 USB ports
9	Audio In port
10	Audio Out port

Rocker switch

The rocker switch is used to power on and off the Base Unit.

- To switch on the Base Unit, set the rocker switch to “I”.
- To shut down the system, set the rocker switch to “0”.

Mechanical fixture points

The mechanical fixture points are located at the bottom of the Base Unit

Antenna

Two antennas are included in the ClickShare box. To avoid damage during transport, they are not pre-mounted. Depending on the installation method you should secure the antenna to the back of the Base Unit or to the front panel of the rack mount.

The antennas can rotate for a better wireless connection.

Usage of antennas other than the ones provided with the unit are allowed within the restrictions on usage of other antennas defined by local regulations. Barco does not take responsibility for damage or disturbance of other devices that may be caused by using a different antenna. The use of an active power amplifier is not allowed.

Antenna type : Dipole

Gain : Maximum 2dBi peak gain in 2.4GHz and 5Ghz band

Ventilation grids

Ventilation grids are foreseen on the top and both sides of the Base Unit.

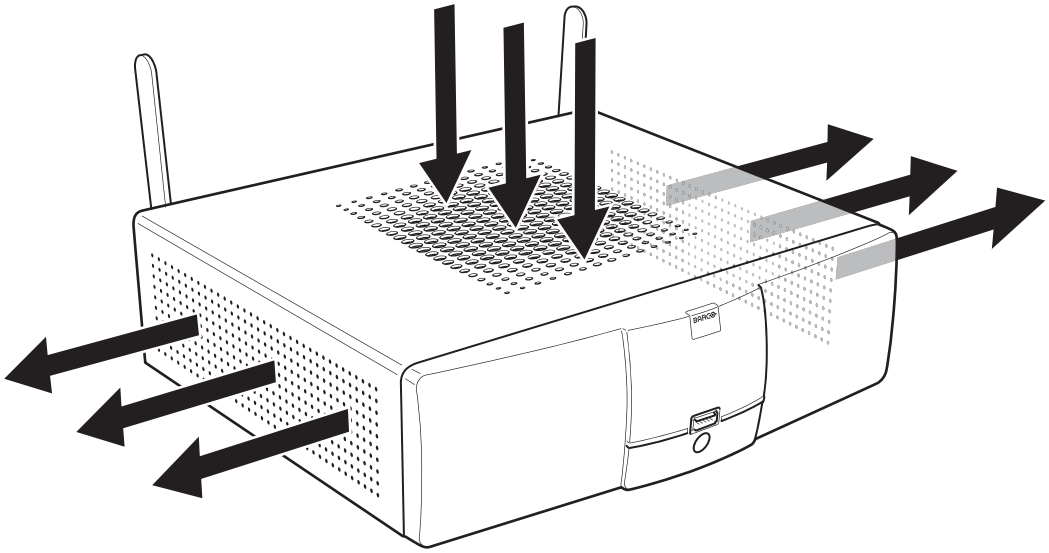


Image 2-5
Ventilation grids IN and OUT

The Base unit sucks air via the top ventilation grid and push hot air out on both sides.

Make sure not to cover the ventilation grids during operation of the Base Unit. Always keep a free area of minimum 50 mm in front of all ventilation grids.

Bottom layout of the Base Unit

The serial number label with the applicable certification logos is stuck at the bottom of the Base Unit.

The serial number label contains:

- the Barco logo
- the Barco part number
- the serial number
- the revision number
- the production date (month/year)
- markings for applicable standards (CE, CCC, UL, ...)
- markings for waste regulation
- “Made in ...”

2.5 About the Button

Buttom

A Button toggles the sharing of the individual PC or MAC screen on the meeting screen.

Button layout

A Button consists of three main components.

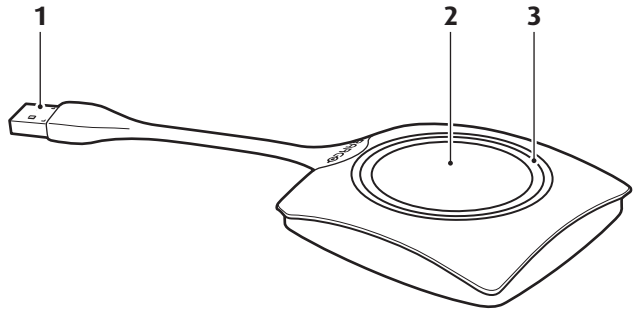


Image 2-6
Button layout

1	USB connector
2	Button
3	LED ring

Table 2-6

USB connector

Using the USB connector the Button can be plugged into a laptop (for sharing your screen) or the Base Unit (for pairing the Button to the Base Unit or updating its software).

Button

Click the Button to display the content of the laptop's screen on the meeting room display. Clicking the Button during the meeting will toggle the sharing of the screen.

Holding the button for 2 seconds brings the content of the laptop's screen as full screen on the meeting screen, removing other sources currently displayed.

LED ring

The LED ring indicates the current status of your ClickShare.

LEDs behavior	Explanation
white blinking	• the Button is plugged in the laptop and initializing or waiting for the user to start the ClickShare application. • pairing/software update of the Button in the Base Unit is in progress.
static white	• ClickShare is ready to start sharing your screen. • pairing is done. You can now unplug the Button from the Base Unit.
static red	• sharing your screen with the display. • pairing and software update is done. You can now unplug the Button from the Base Unit.
red blinking	• an error occurred.
off (no light)	• the Button is not or not properly inserted into the USB port. • the Button might be defective. • the USB port or computer might be defective.

Button label

The label at the bottom of the Button contains:

- the Barco logo
- the Barco part number
- the serial number
- the revision number
- the production date (week/year)
- markings for applicable standards (CE, CCC, UL, ...)
- markings for waste regulation
- "Made in..."

Handle the Button cable with care. Rough handling might cause defects.

2.6 About the Tray

Tray layout

The function of the Tray is to hold the Buttons on the table after the meeting is finished. The Tray can hold up to 5 Buttons.

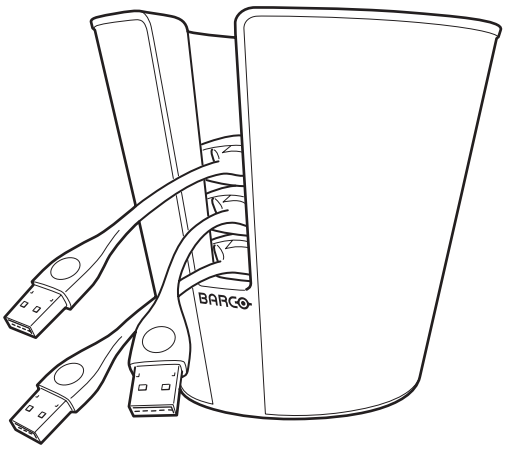


Image 2-7
Tray layout

Article number

The specific article number of the tray can be found at the bottom of it.

Do not clean the Tray with products containing alcohol.

Tray is passive, requires no power or batteries.

2.7 Mobile Device Support

Overview

The below list of Apps are supported by ClickShare and can be installed on your mobile device from Google Play or Apple App Store.

Before you can use your mobile device with ClickShare, you have to connect the mobile device Wi-Fi with the ClickShare Base Unit Wi-Fi. Follow the instructions as given in your mobile device user guide.

App	Used on	Logo
ClickShare Presenter	iOS Android	
MirrorOp Sender for Galaxy	Galaxy mobile devices	

3. GETTING STARTED

Overview

- Environmental Condition Check
- Basic Workflow

3.1 Environmental Condition Check

Environment condition check

A device must always be mounted in a manner which ensures both air inlets and outlets are free. For installations in environments where the device is subject to excessive dust, then it is highly advisable and desirable to have this dust removed prior to it reaching the device clean air supply. Devices or structures to extract or shield excessive dust well away from the device are a prerequisite; if this is not a feasible solution then measures to relocate the device to a clean air environment should be considered.

It is the customer's responsibility to ensure at all times that the device is protected from the harmful effects of hostile airborne particles in the environment of the device. The manufacturer reserves the right to refuse repair if a device has been subject to negligence, abandon or improper use.

Ambient temperature conditions

Max. ambient temperature : +40°C or 104°F

Min. ambient temperature: +5°C or 41°F

Storage temperature: -20°C to +60°C (–4°F to 140°F)

Humidity Conditions

Storage: 0 to 90% relative humidity, non-condensing

Operation: 0 to 85% relative humidity, non-condensing

Environment

The ClickShare product is intended to be used in office and indoor environments only.

Do not install the device in a site near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity. Be aware that room heat rises to the ceiling; check that temperature near the installation site is not excessive.

3.2 Basic Workflow

Before using ClickShare

1. Unpack the ClickShare components and accessories from the box.
   For a detailed overview of the content of the ClickShare box, see "About the ClickShare product", page 5.
2. Install the Base Unit in the meeting room using one of the 3 possible installation methods.
   For more information on the installing procedures, see "ClickShare installation", page 17.
3. Connect the video signal(s) between the Base Unit and the display(s).
   For more information on connecting the Base Unit, see "Video signal connections to the Base Unit", page 23.
4. Connect the audio from the Base Unit to the meeting room's sound system (Only required for audio via jack).
   For more information, see "Audio connection", page 25.
5. If an iPad is allowed to participate, install the ClickShare Link and set up the necessary connections.
   For more information, see "Connecting an iOS device", page 27.
6. Connect the Base Unit to the mains power and start up.
   For more information, see "Power connection and switching on", page 26.
7. If configuration via a network is needed, connect a network cable between the Base Unit and the local network.
   For more information, see "LAN connection", page 25.
8. If desired, configure ClickShare via the Web Interface.
   For more information on the different ways to configure ClickShare, see "Accessing the ClickShare Web Interface", page 41.

ClickShare is ready to be used.

For more information on using ClickShare, refer to the ClickShare User Guide (R5900001). This manual can be found on Barco's website www.barco.com/clickshare Click on **Visit the ClickShare product page** and go to tab **Downloads**..

4. CLICKSHARE INSTALLATION

About this chapter

The installation chapter gives an overview of the different ways to install the base unit of ClickShare, the possible connections and the use of ClickShare Link for an iPad connection.

Overview

- Installation methods for the Base unit
- Table mounting
- Wall mounting
- Ceiling mounting
- Rack mounting
- Recommendations about antenna placement and orientation
- Video signal connections to the Base Unit
- Audio connection
- LAN connection
- Power connection and switching on
- Connecting an iOS device
- About Network integration

WARNING: Do not connect to the mains power during installation.

WARNING: Make sure the mains power connection to the Base Unit is accessible to the user at all times.

CAUTION: Mounting the Base Unit under a random angle is not allowed. It should be mounted horizontal or vertical according to the installation instructions.

WARNING: Only use the antennas that are delivered with the product. Other antennas are not allowed.

WARNING: Use a power cord which complies to local regulations. If not included in the box, contact your local dealer for a correct power cord.

4.1 Installation methods for the Base unit

For optimal performance, install the Base Unit close to the display and avoid obstacles between the Base Unit and the Buttons. Do not block the fan inlets and outlets of the Base Unit!

Introduction to the installation methods

The base unit can be installed in different ways in a meeting room:

- Table mounted
- Wall mounted
- Ceiling mounted
- Rack mounted

The antennas are removable. They can be fixed to the Base Unit depending on the way the Base Unit is installed in the room. The antennas can rotate for better wireless connection.

Using extension cables for the antennas is allowed, but this can reduce the performance.

4.2 Table mounting

Overview

Put the Base Unit directly on the meeting room table.

The total weight of the Base Unit is 2,6 kg.

CAUTION: When placing the Base Unit inside a closed cabinet, make sure there is sufficient ventilation for hot air exhaust.

4.3 Wall mounting

About wall mounting

Use the mounting brackets, inserted in the ClickShare box, to mount the Base unit on the wall.

The total weight of the Base Unit — including the mounting brackets — is 2,9 kg.

Necessary tools

- a drill (type of drill depends on the type of wall)
- Torx T10 screwdriver
- Additional screwdriver that matches the mounting screws (mounting screws not delivered)

Necessary parts

- 2 mounting screws
- 2 plugs
- Mounting brackets (included in the ClickShare box)

How to install

1. Drill two holes in the wall, at a distance of 173 mm (6.81 inch) from each other on a horizontal line.
2. Insert a plug in each hole (if needed, depends on the wall type) and drive in the 2 screws. Make sure not to drive in the screws fully so that the bracket can be hooked on the screws.
   Note: *Mounting screws and plugs are not included in the ClickShare box . The type of screws and plugs depend on the type of wall (stone, wood, plasterboard, ...) you are mounting the Base Unit to. Make sure the head of the screw is not larger than the hole in the bracket.*
3. Install the brackets on the Base Unit as shown on image 4-1. Use the mechanical fixation points at the bottom of the Base Unit.
   Note: *Use the pre-mounted Pan Head T10 M3 screws (refer to image 4-4) to mount the brackets. Remove them from the Base Unit and reuse them to fixate the brackets to the Base Unit.*

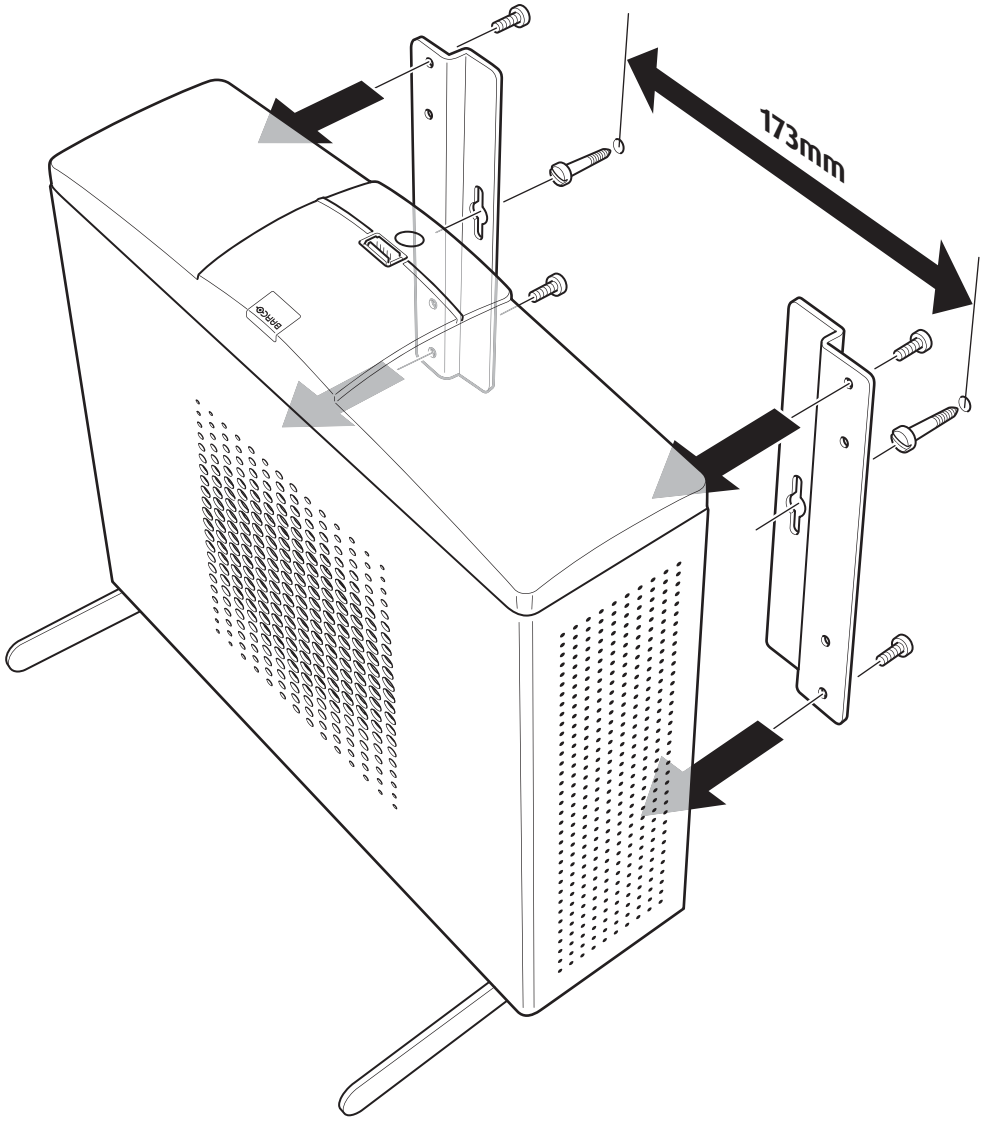


Image 4-1

4. To mount the Base unit on the wall, hook the slots in the brackets over the 2 screws in the wall (front side of the Base unit directed towards the ceiling or the floor) and pull it downward until it is secured.

CAUTION: It is only allowed to mount the Base Unit front side up or down. Mounting on its side is not allowed!

4.4 Ceiling mounting

About ceiling mounting

Use the mounting brackets, inserted in the ClickShare box, to mount the Base unit to the ceiling.

WARNING: Never use the “keyholes” in the mounting brackets to mount the Base unit to the ceiling !

Necessary tools

- a drill (type of drill depends on the type of ceiling and screw type)
- T10 torx screwdriver

Necessary parts

- Mounting brackets (included in the ClickShare box)
- 4 mounting screws and corresponding screwdriver (not included)

How to install

1. Drill four holes in the ceiling according to the dimensions indicated in the picture below (length: 277mm, depth: 157mm)

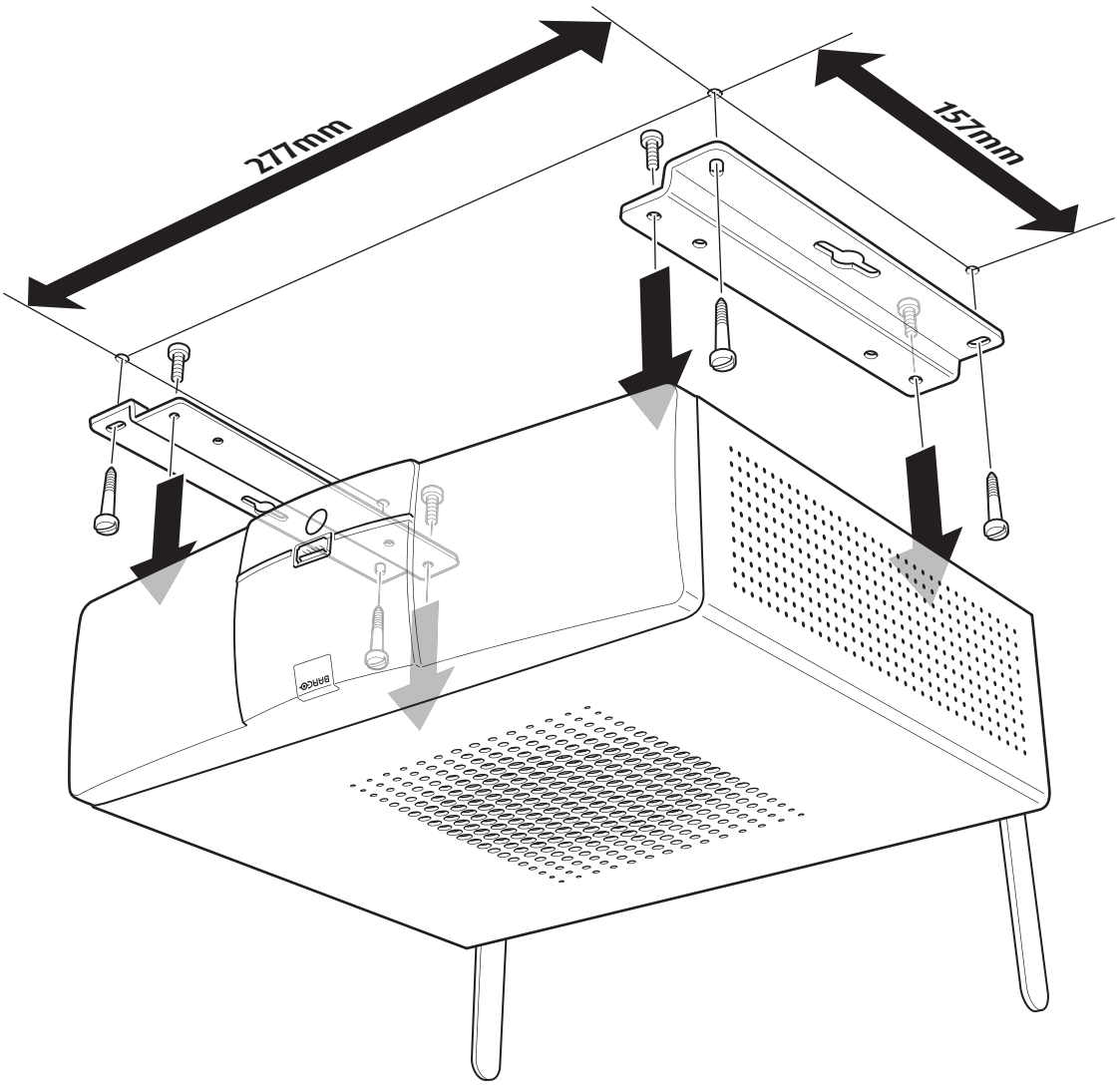


Image 4-2
Ceiling mount

2. Remove the four Pan Head T10 M3 screws at the bottom of the Base Unit.

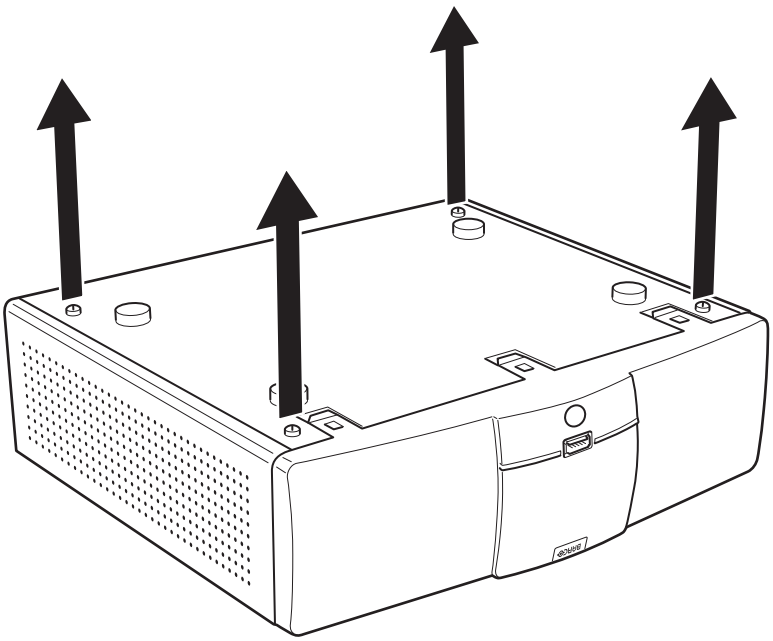


Image 4-3
Removal of pre-mounted screws

3. Install the mounting brackets to the Base Unit as shown on image 4-2. Drive in the four removed Pan Head T10 M3 screws to secure the brackets to the Base Unit.

4. Insert a plug in each hole (if needed and depending on the ceiling type) and drive in the 4 mounting screws.
   Note: *Mounting screws and plugs are not included in the ClickShare box . The type of screws and plugs depends on the type of ceiling (stone, wood, plasterboard, ...) you are mounting the Base Unit to.*

   Tip: *This procedure should be performed by two people: one person holding the Base Unit in place, one person tightening the screws.*

4.5 Rack mounting

About rack mounting

For meeting rooms with a dedicated AV rack, an optional Rack Mount for the ClickShare Base Unit is available. This integrates ClickShare seamlessly into the room's existing high-end AV installation. The rack mounting kit should be ordered separately.

Necessary free space in the rack is 3U.

The total weight of the Base Unit — including the rack mount plate — is 6,1 kg.

Necessary tools

- Torx T10 screwdriver
- Additional screwdriver that matches the mounting screws

Necessary parts

- A rack mount kit (to be ordered separately)
- 4 screws (included in the rack mount kit)

How to install

1. Remove the four Pan Head T10 M3 screws at the bottom of the Base Unit.

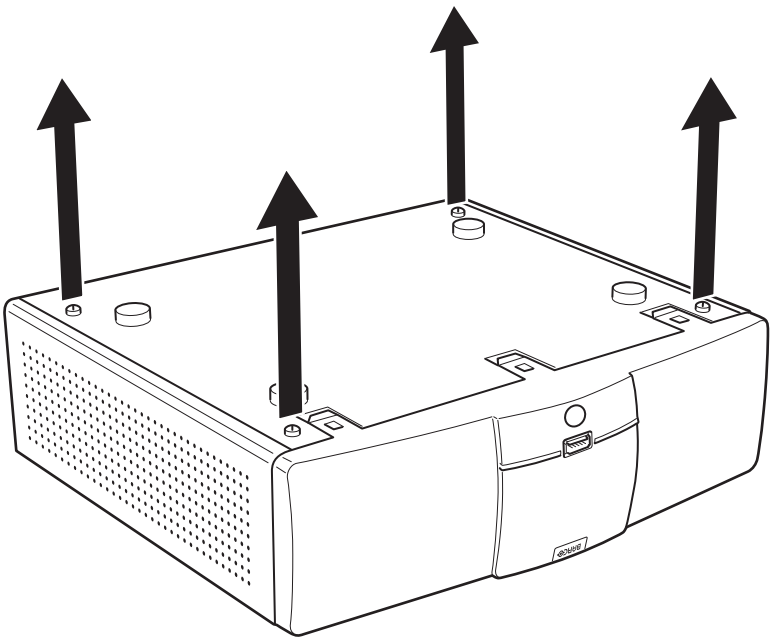


Image 4-4
Removal of pre-mounted screws

2. Place the Base Unit on the rack mount and drive in the four removed Pan Head T10 M3 screws.
   Refer to “1” on image 4-5.
3. Fasten the antenna to the front panel of the rack mount.
   Refer to “2” on image 4-5.

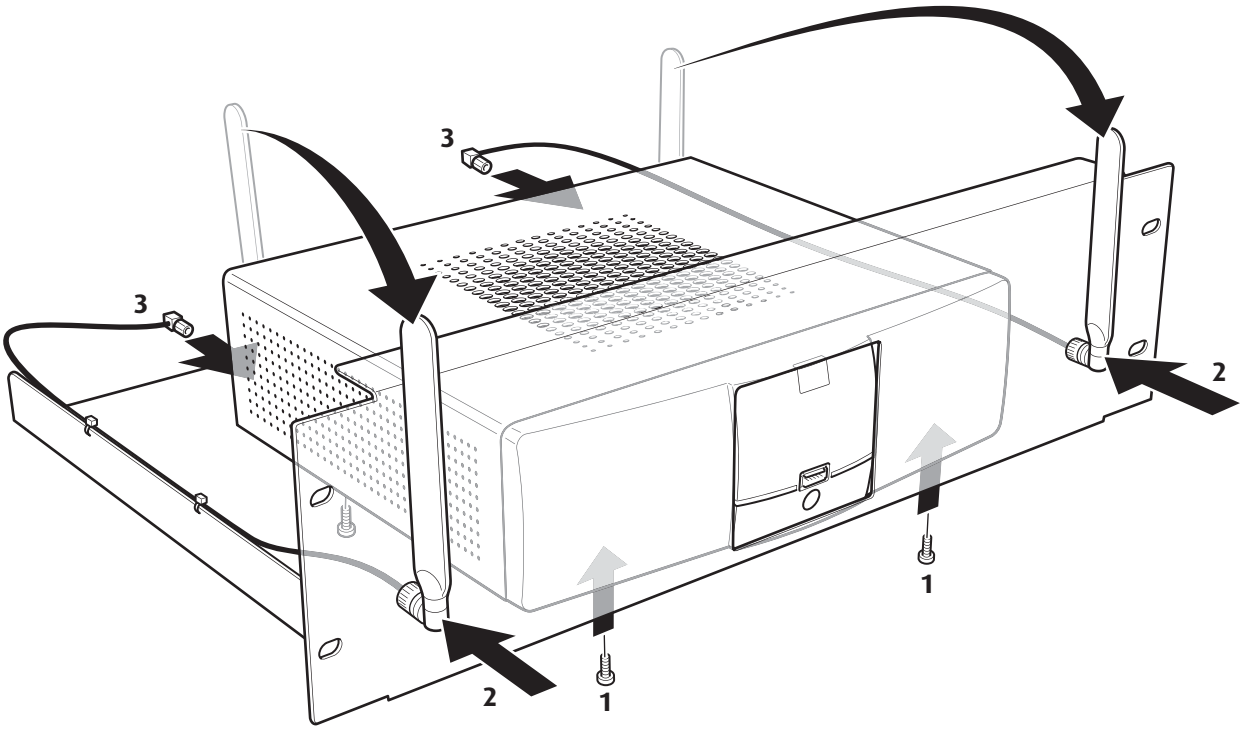


Image 4-5

4. Tighten the antenna cables to the back of the Base Unit.
   Refer to “3” on image 4-5.
5. Use the four included screws to mount the rack mount assembly into the dedicated AV rack.

4.6 Recommendations about antenna placement and orientation

Antenna placement rules

- The antennas should be oriented vertically, so perpendicular to the ceiling and parallel to the walls.
- The antennas should be installed far enough (at least 50cm/1.6ft) from metallic surfaces to avoid unwanted reflections and far enough (at least 1m/3.3ft) from other radio equipment that operates in the same frequency range, e.g. other Wi-Fi access points, cordless telephone, microwave ovens, …. It is also best to install antennas at least 15 cm (6 inches) from concrete walls.
- The most favorable situation is a direct line of sight between antennas and Buttons. Any obstruction will cause the signal to follow a longer propagation path, which can result in performance degradation.
- Due to the particular radio pattern of the dipole antennas, the antennas should not be placed just above potential positions of ClickShare users. As a result, the advised position for the antennas is at the side of the meeting room.

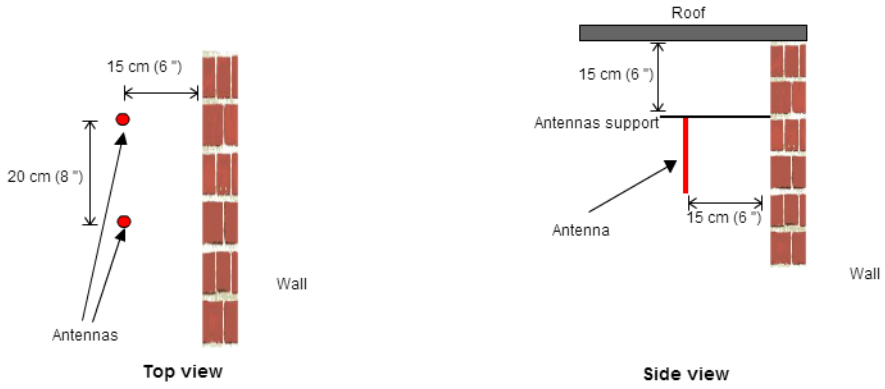


Image 4-6
Closer view of antennas installation in the meeting room

4.7 Video signal connections to the Base Unit

CAUTION: Make sure the Base Unit is installed properly before connecting.

About Video signal connection

Depending on the local setup, a single screen or dual screen setup is possible.

For a single screen setup, a DVI or DisplayPort connection should be made between the Base Unit and the display.

For a dual screen setup, a DVI and a DisplayPort connection should be made between the Base Unit and the displays.

To connect

1. Connect the Base Unit to the display(s) using display cables.
   Refer to “1” on image 4-7.

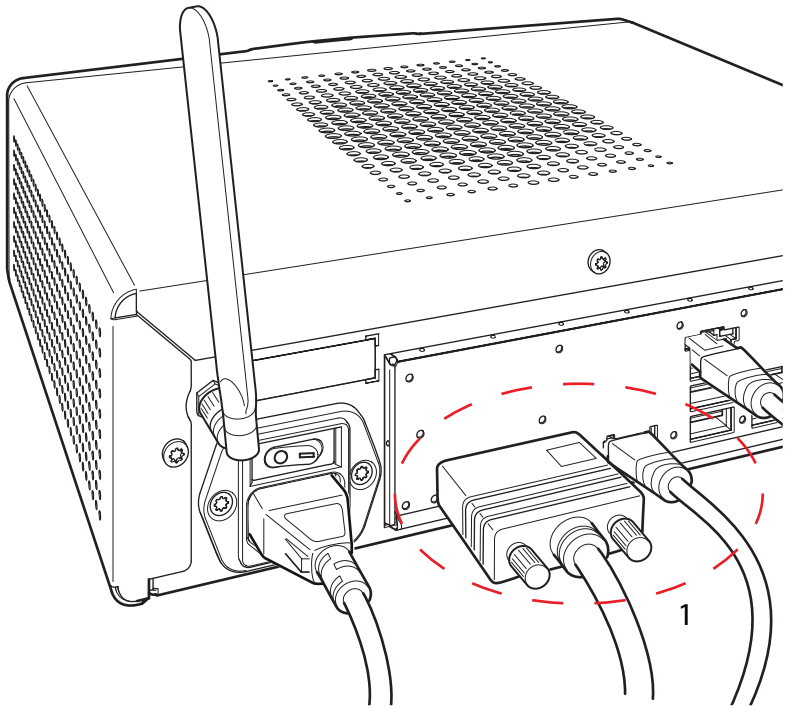


Image 4-7
Display cables connection

Note: *Display cables are not included in the ClickShare box at purchase.*

Supported types of displays are:

- Single Link DVI
- DisplayPort
- VGA: use the adapter included in the ClickShare box (reduced blanking on highest resolution)
- HDMI: use an adapter cable (not included in the box)
- 2560x1080 via Dual Link DVI: Use Barco kit B5606021.

When setting up a single display configuration, connect the DVI-I or the DisplayPort cable to the display.

When setting up a dual display configuration, connect the DVI-I connector with display 1 and the DisplayPort connector with display 2.

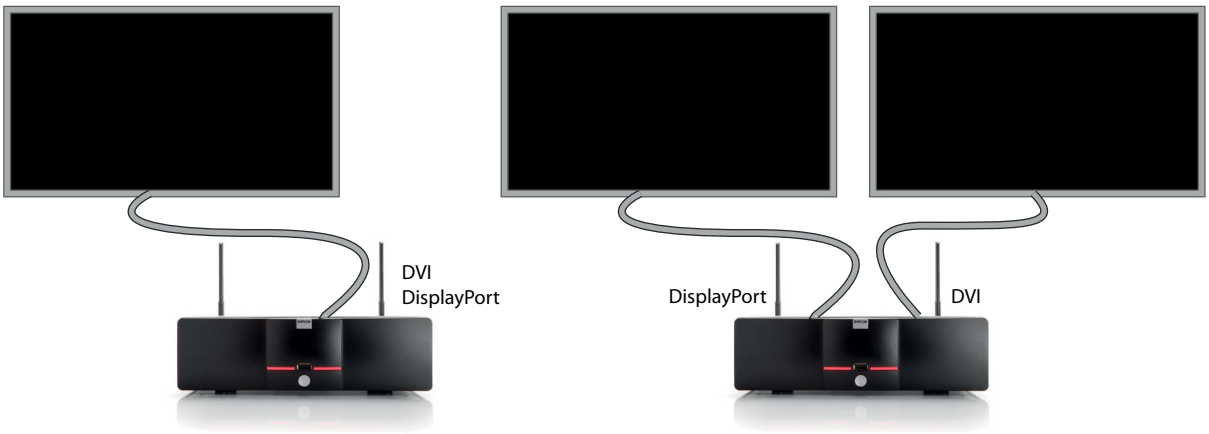


Image 4-8
Display connections

When the second display has no display port input, use an adapter from display port to DVI to connect the display. An active adapter is allowed. Use a USB port at the back side of the Base Unit to power the adapter.

4.8 Audio connection

About audio

The ClickShare Button captures the audio output of the user's laptop and sends it to the Base Unit together with the video signal. The Base Unit will then mix the audio signals from all Buttons that are sharing their content. The mixed audio will be output at line levels from the mini jack socket (3.5mm) (green connector on the back of the Base unit) or via the DisplayPort connector depending on the selection in the Web interface..

It is up to the user to decide whether or not to send the audio signal together with the video signal. The user can decide this by using the same tools as he would to control the laptop's speakers or a headphone: the audio controls of the operating system (eg for Windows: Control Panel > Sounds and audio devices) or the physical buttons on the keyboard of their laptop (mute/unmute, lower volume, higher volume).

There will be synchronization between the audio and video signal.

Audio via DisplayPort

When your display is connected via DisplayPort and it supports audio than a separate audio connection is not necessary. The audio signal can be sent together with the video signal to the display. Set in the web interface the audio setting to *digital*.

How to connect separate audio

1. Connect an audio cable with mini jack socket (3.5mm) into the audio out of the Base unit.

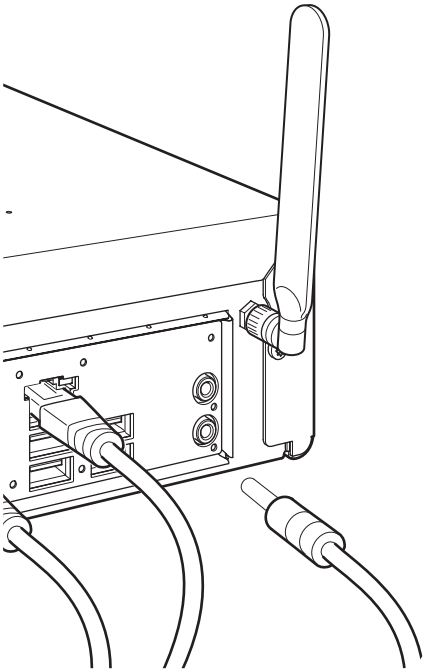


Image 4-9

2. Connect the other side to the meeting room's sound system.

Sound is not sent out

In some Windows environments sound is not sent out. This can be solved as follow:

1. Right click on the sound icon in the system tray and select *Playback devices*. The *Sound* window opens.
2. Select Speakers ClickShare, select *Set default* and click **Apply**.

4.9 LAN connection

About LAN connection

The Base Unit can be connected to a local network or directly to a laptop. For normal operation, a LAN connection is not necessary.

The LAN connection can be used:

- to configure your ClickShare unit
- to update the software
- for maintenance purposes

How to connect

1. Insert a network cable with RJ-45 connector into the LAN port.

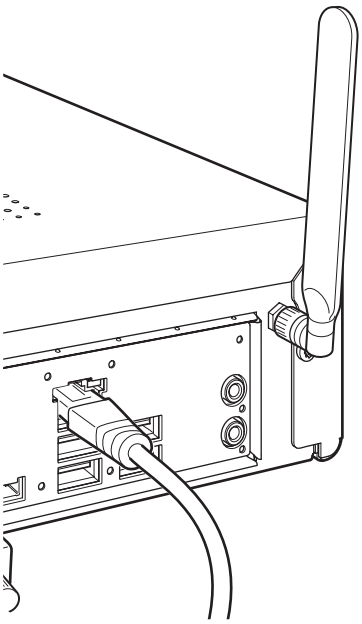


Image 4-10
LAN connection

2. Connect the other side to a LAN.

4.10 Power connection and switching on

WARNING: Use a power cord which complies to local regulations. If not included in the box, contact your local dealer for a correct power cord.

How to connect

1. Plug the power cable in the mains power connector at the back of the Base Unit
   Note: *The local variant of the power cable is included in the ClickShare box.*

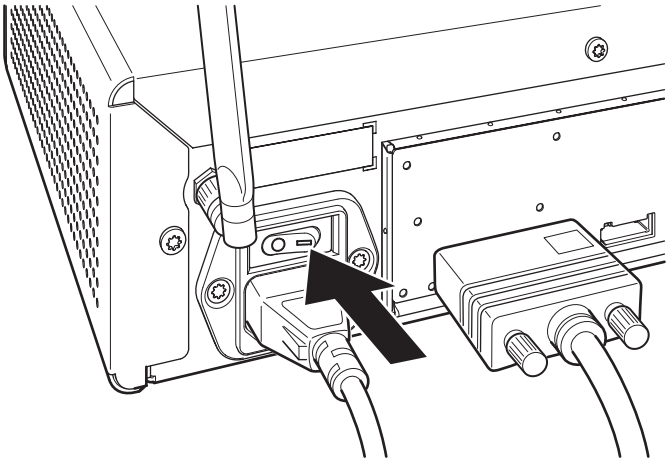


Image 4-11
Power connection

European version	Type C and type G
Japanese version	Type A
Chinese version	Type I CCC
North American version	Type A

2. To power on the unit, set the rocker switch to “1”.

   If the Base unit does not start up automatically, use the standby button.

   The standby button at the front can now fully control the unit.

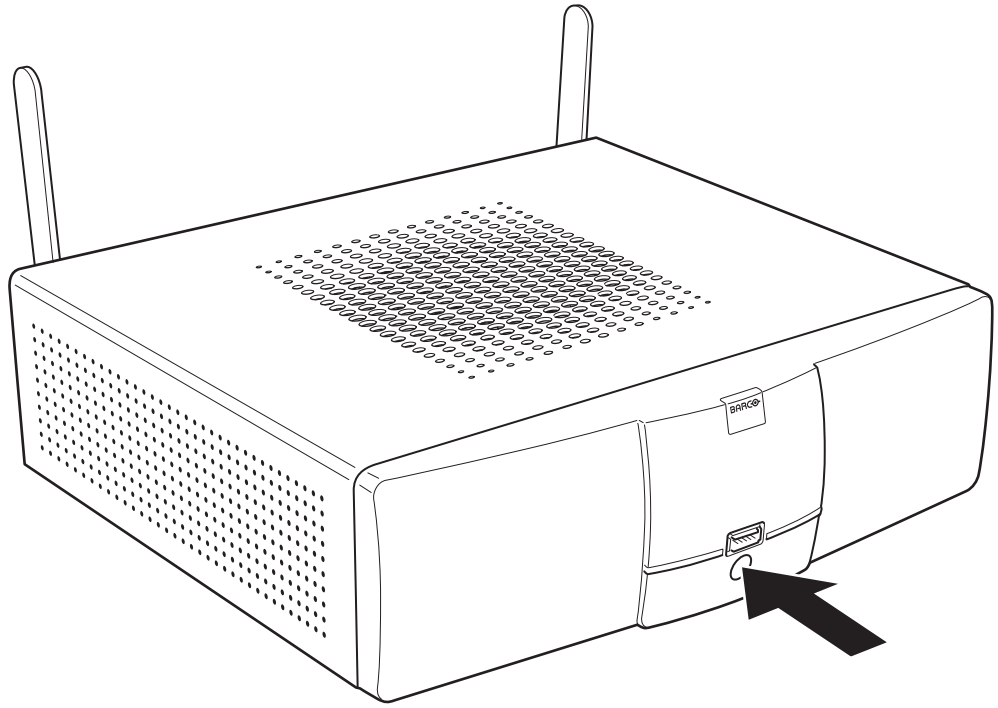


Image 4-12
Standby button

The standby button has the following functions:

- When the system is awake, a short push triggers the system to go into standby mode.
- When the system is in standby mode, a short push triggers the system to wake up.
- When the system is powered on, a long push causes the system to shut down and power off.
- When the system is shut down, a long push or short push triggers the system to start up.

4.11 Connecting an iOS device

The optional Hardware add-on ClickShare Link is needed to connect an iOS device.

About an iOS device connection

The ClickShare Link allows users to get the content from an iOS device touchscreen to the large meeting room screen. The iOS device behaves like an additional laptop. Note that the ClickShare Link only streams video, sound is not supported.

The ClickShare Link is to be attached to the (rear) USB port of the ClickShare Base Unit.

For the iOS device itself, there are two ways to connect to the ClickShare Link:

- Cable connection, requires an HDMI adapter for iOS device.
- Wireless, requires an Apple TV. AirPlay needs to be activated on the iOS device.

Only 1 iOS device and ClickShare Link combination allowed per ClickShare base Unit. Multiple iOS device can be used when using the ClickShare App.

Connection via cable

1. Connect a USB cable between the ClickShare Link USB port and one of the backside USB ports of the Base Unit.

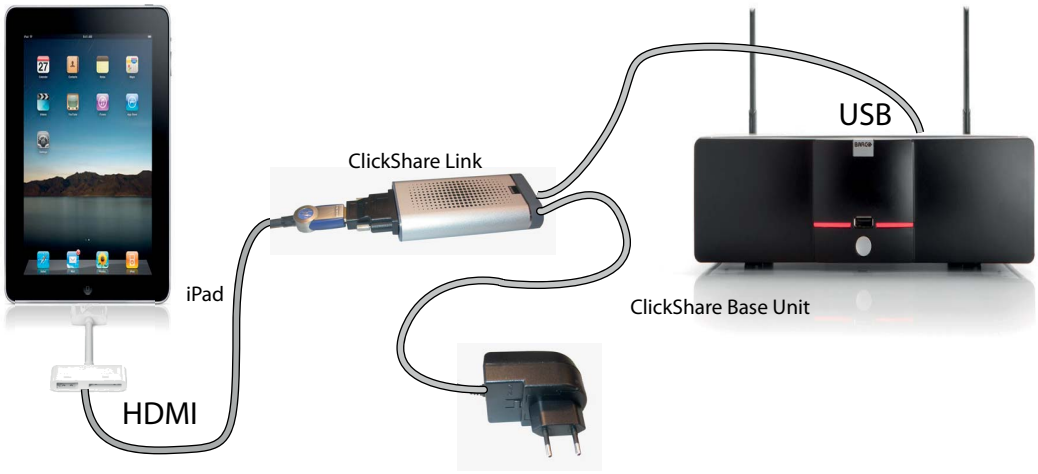


Image 4-13
iPad connection via cable

2. Connect an HDMI to DVI video cable to the DVI input of the ClickShare Link or place the convertor from DVI to HDMI on the ClickShare Link and connect an HDMI cable.
3. Connect the power adapter to the power input of the ClickShare Link.
4. Slide a power input adaptor piece on the power adapter of the ClickShare Link . Use the one which is applicable in your country.

Image 4-14
Type A

Image 4-15
Type C

Image 4-16
Type G

Image 4-17
Type I

5. Connect the power cable of ClickShare Link to wall outlet.
6. Connect the HDMI side of the cable into the iOS device HDMI convertor. (iOS device convertor 30 pin or Lightning connection to HDMI)

   The content of the screen will be displayed on the meeting room screen.

Connection via Apple TV, note

Minimum Apple TV version 3 is required, Apple TV must support 1080p.

Connection via Apple TV

1. Connect a USB cable between the ClickShare Link USB port and one of the backside USB ports of the Base Unit.

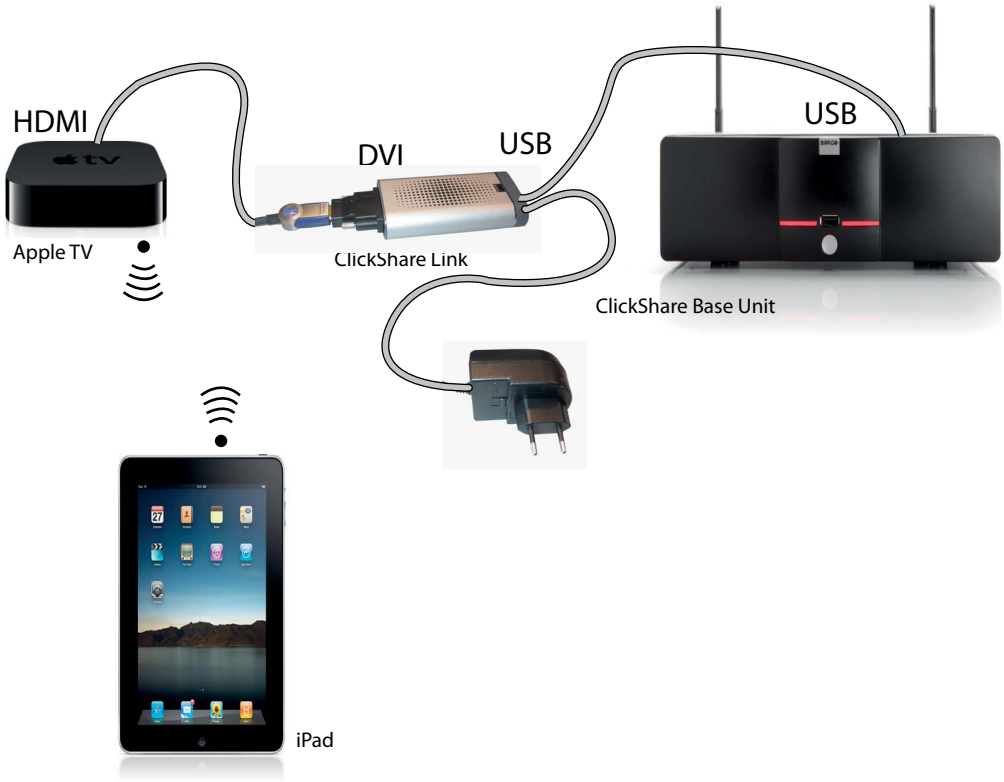


Image 4-18
Wireless iPad connection

2. Connect an HDMI to DVI video cable to the DVI input of the ClickShare Link or place the convertor from DVI to HDMI on the ClickShare Link and connect an HDMI cable.
3. Connect the HDMI side of the cable to the Apple TV.
   For more information about Apple TV, consult Apple TV's user guide.
4. Connect Apple TV and iOS device to a WiFi network (it can be the WiFi network of the Base unit or another WiFi network)
   Or,
   connect Apple TV and the iOS device to a router, connected to a LAN network.
5. Connect the power adapter to the power input of the ClickShare Link.
6. Slide a power input adaptor piece (US, CN, EU or UK) on the power adapter of the ClickShare Link . Use the one which is applicable in your country.

Image 4-19
Type A

Image 4-20
Type C

Image 4-21
Type G

Image 4-22
Type I

7. Connect the power cable of ClickShare Link to wall outlet.
8. For Apple TV, proceed as follow:

In this example, we will connect to the wireless network of the Base Unit. If you want to use a different network, please contact your IT administrator.

- Go into the Apple TV main menu and connect to the ClickShare Base Unit WiFi (IP address = `192.168.2.1`, password : `clickshare`, SSID: `ClickSharre-"serial number unit"`)

Wi-Fi Network
To connect to the Internet, choose your Wi-Fi network, or connect using an ethernet cable. If you don't see your Wi-Fi network, select Other.
ClickShare-9714072474
Free_WiFi
InterContinental
InterContinental Meetings
Ozone
Other...

Image 4-23

- Continue without internet. Set IP via DHCP.

Internet Connection Failed
Your Apple TV is connected to your Wi-Fi network but cannot connect to the Internet.
Try to Connect Again
Configure Network Settings
Return to Network Setup
Continue Without Internet

Image 4-24

- Go to the *Settings* page, select *General*, *Sleep after* and set to **Never**;

Image 4-25

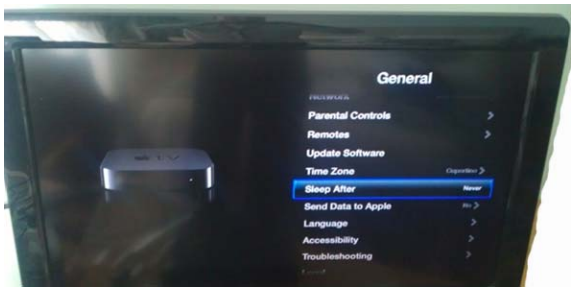


Image 4-26

- Go to the *Settings* page, select *Screen Saver*, *Start After* and set to **Never**.

Image 4-27

- Return to the Home page of the Apple TV.

Image 4-28

- Calibrate the ClickShare Link to the Apple TV menu by going into the ClickShare Base Unit web interface. By calibrating the Link, we make sure that the Apple TV menu is not shown in the ClickShare composition. iOS content will only be shown when an iOS device is actually sharing via AirPlay. For more info about the calibration procedure, see "Calibrating a ClickShare Link", page 81.

Note: *Minimum Apple TV version 3 is required, Apple TV must support 1080p.*

9. iOS device user should connect to the same network the Apple TV is connected with and he should start the sharing by enabling *AirPlay mirroring*. For more information on how to set up, consult the iPad's user guide.
   Note: *Always use AirPlay mirroring. Do not use Streaming.*

When the Apple TV is connected to the internet

These are additional steps to execute when the Apple TV is connected to the public internet. It is not optional to have the Apple TV connected to the internet, for the ClickShare experience this is not required.

1. Remove the lowest row of icons as follow:
   a) Go to **Settings** → *Main menu*
   b) Select the service you want to hide
   c) Select *Hide* from the options.
   d) Repeat until all services are hidden.

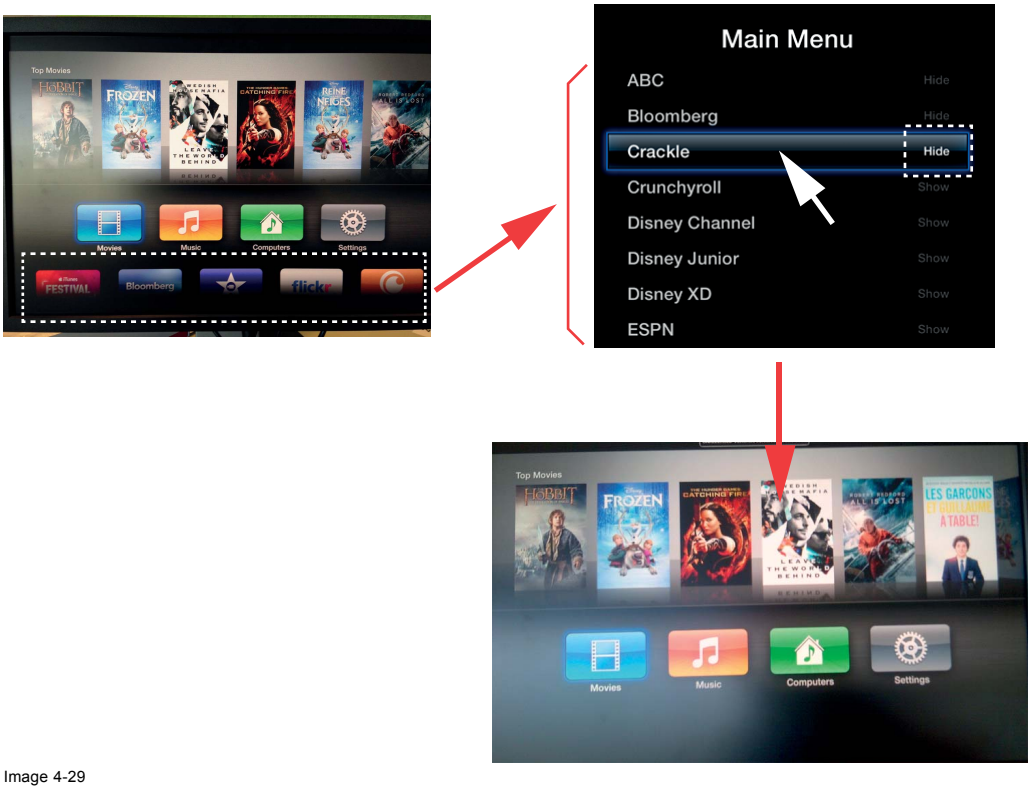


Image 4-29

2. Calibrate the ClickShare Link to the Apple TV menu by going into the ClickShare Base Unit web interface.
   During the calibration procedure, click with the remote control to the right so that the 4 icons (Movies, Music, Computers, Settings) are selected one by one and the calibration procedure can be finished.

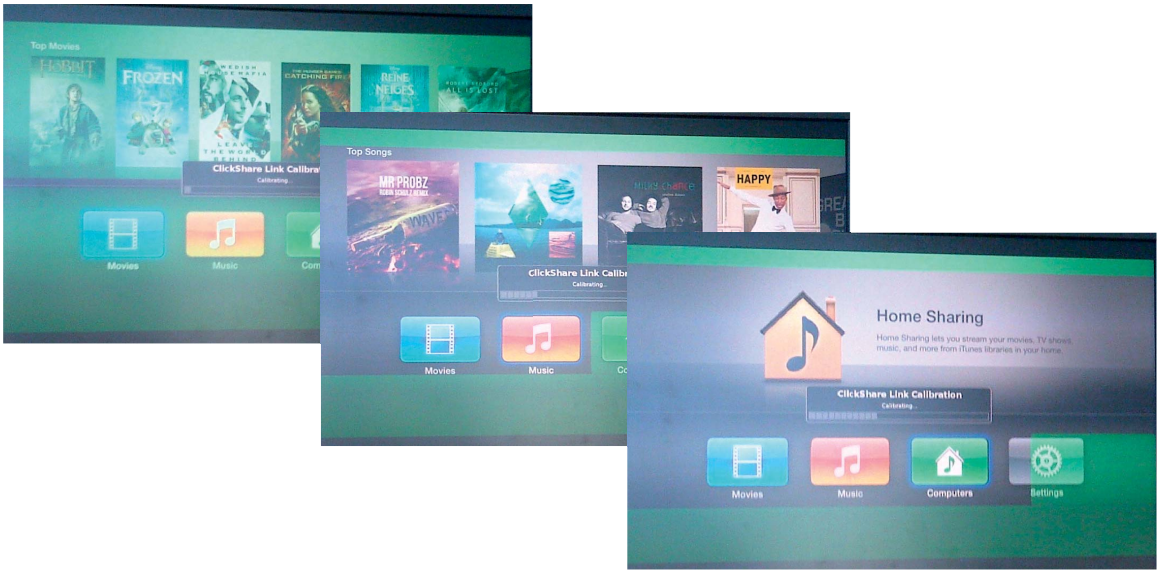


Image 4-30

4.12 About Network integration

Introduction

The ClickShare network integration option is aimed at deploying ClickShare in larger organizations without interfering with the existing wireless network infrastructure. In a default stand-alone setup, the ClickShare Base Unit will always create it's own wireless access point (AP) which the ClickShare Buttons use to connect. These so-called "rogue" APs can become a nuisance in larger installations. Next to that, meeting participants who are sharing content from mobile devices have to switch networks to connect with the ClickShare Base Unit.

This is where the ClickShare Network Integration comes in. Once fully configured and enabled the built-in AP of the Base Unit will be disabled and the Button will instead connect to a wireless access point which is part of the corporate network. At this point the Base Unit will need to be connected to the corporate network via the wired Ethernet interface in order for the Buttons to be able to share their content on the Base Unit.

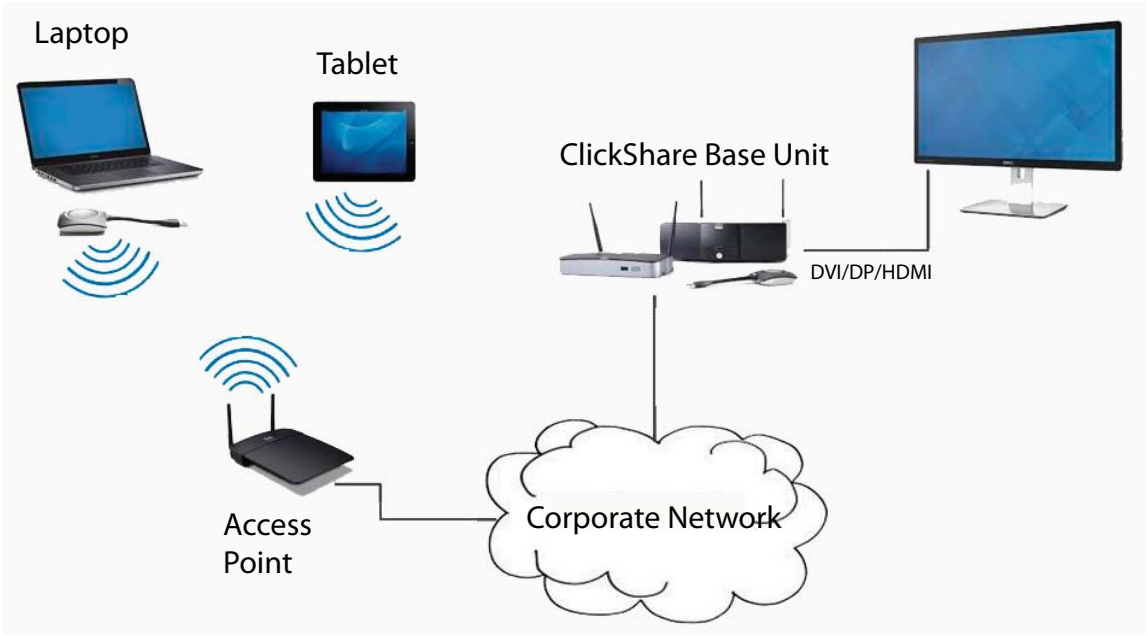


Image 4-31

Security modes

There are 2 security types that are supported by the Button to connect to the corporate network.

- The first and foremost one in case of a typical corporate network setup is *WPA2-Enterprise with 802.1X*.
- As we also want to support smaller organizations which might have a more traditional Wi-Fi setup, there is also support for WPA2-PSK also known as *WPA2-Personal*.

Both modes are based on Wi-Fi Protected Access (WPA). If we mention WPA2, we are talking about WPA2 as an improved version of the original WPA standard which adds AES encryption to improve security.

About WPA2-Enterprise with 802.1X

WPA2-Enterprise relies on server (using RADIUS) to authenticate each individual client on the network. To do this authentication, 802.1x is used (also known as port based Network Access Control). 802.1x encapsulates the Extensible Authentication Protocol (EAP) for use on local area networks. This is also known as *"EAP over LAN"* or *EAPoL*. Using RADIUS, these EAPol messages will be routed through the network in order to authenticate the client device on the network. In case of ClickShare, these are the Buttons.

The 802.11i (WPA2) standard defines a number of required EAP methods. Not all of them are used extensively in the field and some other ones (which are not in the standard) are used much more often. The most widely used EAP methods.used in the ClickShare system are:

- EAP-TLS
- PEAP
- EAP-TTLS

More detailed information can be found in the ClickShare Web Interface, corporate network setup.

About WPA2-Personal

Pre-shared key mode (WPA2-PSK) is the default security method used in most consumer and small business Wi-Fi setups which doesn't require the extended complexity and features of 802.1X. PSK mode is also known as "personal" mode. Although less secure than 802.1X, PSK mode with smaller business setups in mind is supported.

Considerations

When deciding to integrate the ClickShare system in to your corporate network there are a few things to consider up-front.

- Make sure that all your Base Units can be connected to your network via the wired Ethernet interface.
- Take into account the amount of bandwidth that each button needs to stream the captured screen content to the Base Unit. Typically this will be somewhere in between 5 and 15 Mbps. So, prevent bottlenecks in your network (eg. 100 Mbps switches) that could potentially degrade your ClickShare experience due to a lack of bandwidth.

Network prerequisite

Once you enable the corporate network, the internal Wi-Fi access point of the ClickShare Base Unit is disabled. Make sure your Base Unit is connected to the corporate network via its wired Ethernet interface.

Firewall prerequisite

To ensure you can successfully share content via the ClickShare Button, ClickShare iOS App or Android ClickShare Presenter App to the Base Unit make sure following ports are open on your network:

Sender	CSM Base Unit	CSC Base Unit
ClickShare Button	TCP : 1688-1689; 3268; 8080; UDP: 1047-1049	TCP: 9876
ClickShare Presenter (iOS)	TCP/UDP: 9870	TCP/UDP: 9870
ClickShare Presenter (Android)	TCP/UDP: 9870	TCP/UDP: 9870
AirPlay	n/a	TCP: 7000; 47000; 4100-4200; UDP: 4100; 4200

VLAN prerequisite

A lot of corporate networks are being divided into multiple VLANs – for example to separate BYOD (Bring Your Own Device) traffic from the "core" corporate network. Take this into consideration when integrating ClickShare into your network. ClickShare Buttons connecting to your wireless infrastructure should be able to connect to the Base Units. Furthermore if you want to use the mobile apps, also those devices should be able to reach the Base Units.

DNS prerequisite

In order for the Buttons to be able to stream their content to the Base Unit they have to be able to resolve the Base Unit's hostname within the network.

NTP prerequisite

When using EAP-TLS, you must also configure NTP on the Base Unit. This can be done via the ClickShare Web interface on the Base Unit. It is necessary for the Base Unit to have the correct time to handle the certificates required for EAP-TLS. Preferably you should use a NTP server on the local corporate network with a high availability. Be advised that when using a NTP server on the internet, it's not possible for the Base Unit to connect through a proxy server.

Setup

Due to the variety of options and complexity of the setup we have created a wizard in the ClickShare Web interface. This wizard will guide you through the process based on the security mode you select. For more information about the setup, see chapter "6. Web Interface", "Corporate network, activation", page 58.

5. PREPARING THE BUTTONS

Overview

- Pairing
- Pre-install of the Launcher service
- ClickShare launcher installer
- ClickShare for Linux

5.1 Pairing

Pairing of the Buttons with the Base Unit

To be able to use a Button it should be assigned to the Base Unit you are using. This process is called pairing. By default, the four Buttons delivered with the ClickShare set are already paired to the specific Base Unit.

In case you buy additional Buttons or when a Button should be assigned to another Base Unit, the Button needs to be paired (again). When updating the Base Unit software to version 01.06 or higher, the Button software will update automatically over WiFi and does not need manual pairing again. The Button software update runs in the background and will not impact users while using the system. If desired, this feature can be disabled in the Web Interface. When downgrading or updating to an older version of the Base Unit software the Buttons need to paired manually to update their software.

A Button can only be paired to one Base Unit at a time.

The Button will always make connection to the Base Unit it was last paired to.

To pair a Button to the Base Unit

1. Insert the Button in the USB port at the front of the Base Unit you are using.

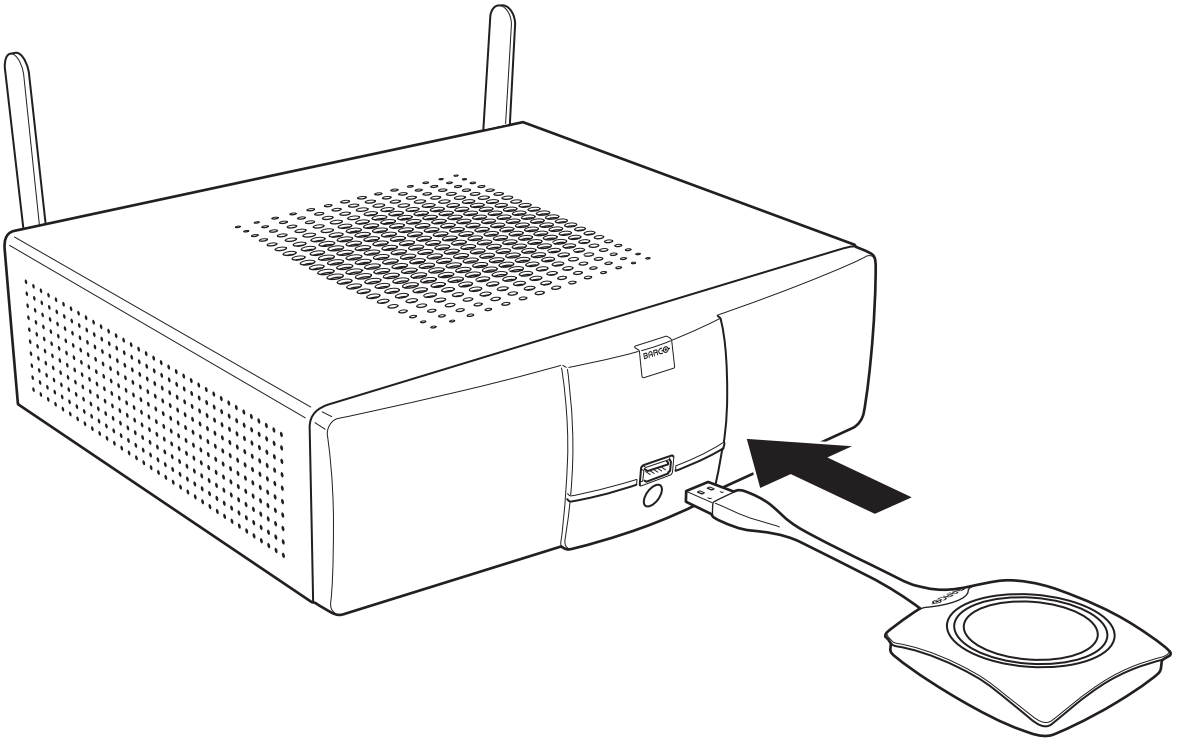


Image 5-1
Inserting Button into the Base Unit

Both the LEDs of the Button and the LEDs of the Base Unit are blinking white. This means pairing is in progress.

The Base Unit automatically checks whether the software of the Button is up to date. If not, the Base Unit updates the Button software. This may take more time.

During the pairing and update process, a message is displayed on the screen: *"Pairing and updating Button. Busy pairing and updating"*

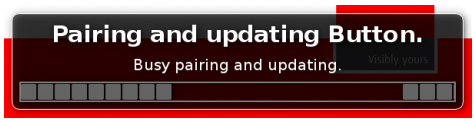


Image 5-2
Pairing message

The result of the pairing process can be as follows:

- When the LEDs become static white, the Button is paired to the Base Unit, but no software update was needed. You can unplug the Button from the Base Unit.
- When the LEDs become static red, the Button is paired to the Base Unit and the software update has finished. You can unplug the Button from the Base Unit.

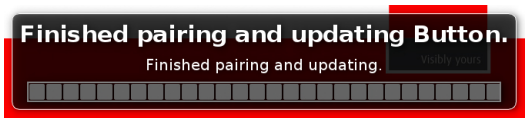


Image 5-3
Pairing finished

2. Unplug the Button from the Base Unit.

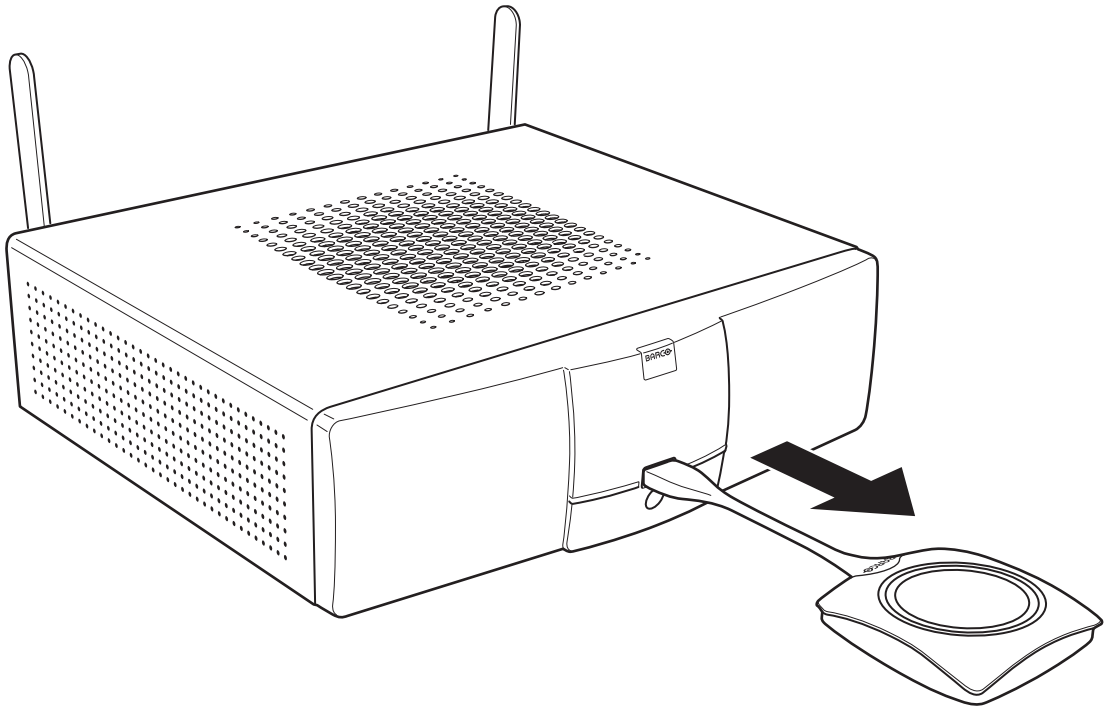


Image 5-4
Unplug Button from Base Unit

The Button is now ready for use.

5.2 Pre-install of the Launcher service

Launcher service pre-install

The ClickShare Launcher service can be pre-installed on your laptop or on company level. How this is done depends on your IT infrastructure.

When the Launcher service is pre-installed, a launcher application runs in the background. When you plug the Button in your laptop, the ClickShare application will be run from the Button automatically. There is no need to run the file from the Button.

The pre-installer can be downloaded from the Base Unit's web interface and the Barco website.

Where to download the launcher installer?

The launcher service (installer) can be downloaded from the Base Unit when entering the webui. Go to *Maintenance* > *Software* and download the launcher service.

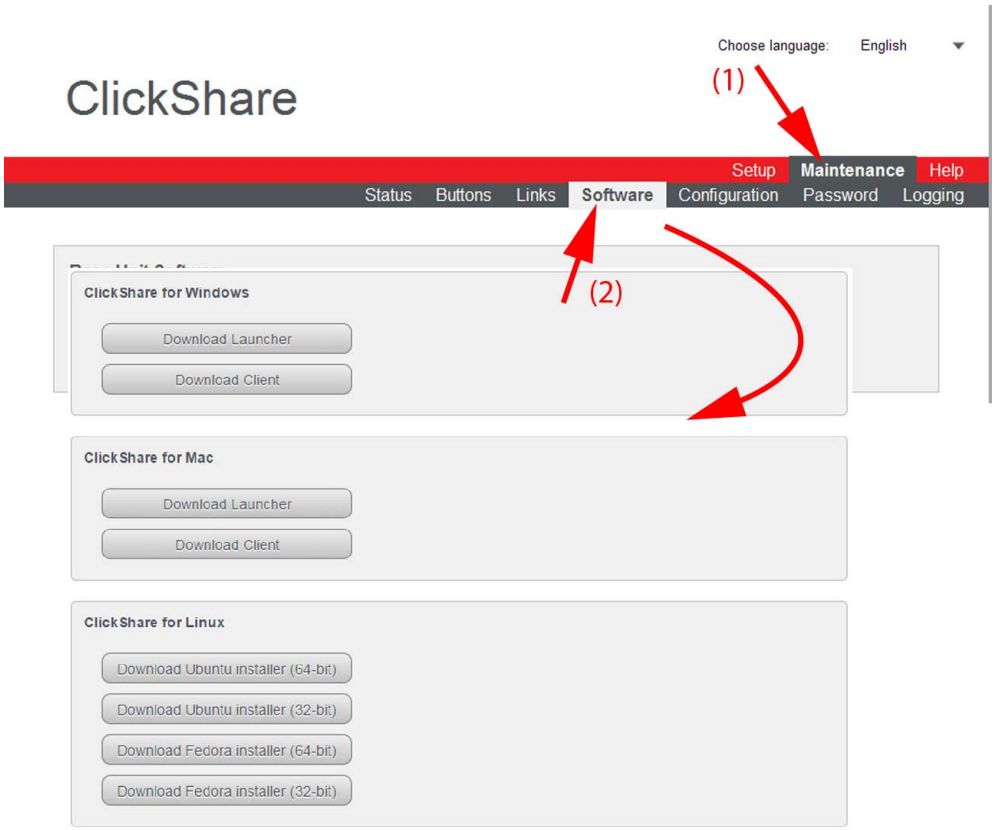


Image 5-5
Downloads software

5.3 ClickShare launcher installer

Interactive setup

In this setup, user runs the installer and installs the ClickShare launcher to the computer after accepting EULA and specifying the installation directory. Follow the instructions on the displayed screens.

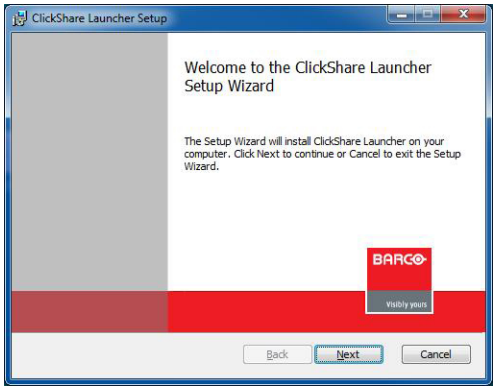

ClickShare Launcher Setup
Welcome to the ClickShare Launcher Setup Wizard
The Setup Wizard will install ClickShare Launcher on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
BARCO
Back
Next
Cancel

Image 5-6

After the setup finished, the ClickShare launcher will be started automatically.

Silent setup

In this setup, a user or an IT admin can install the ClickShare launcher using the Windows command prompt. Following is an example of a silent installation:

```
msiexec.exe /i ClickShare_Launcher_01_06_00_0144_Setup_Win.msi ACCEPT_EULA=YES INSTALLDIR=C:\
LAUNCH_APP=YES /qn
```

Parameter	Description
AC-CEPT_EULA	This parameter shows that the installer accepts the EULA text as is. This parameters must be set to YES in order to continue to the installation.
INSTALLDIR	This parameter specifies the installation directory for ClickShare launcher. If not specified, the default folder will be the Program Files folder.
LAUNCH_APP	The ClickShare launcher application will be started right after the installation finishes if this parameter is set to YES. Otherwise, the launcher application will not be started.
/qn	This parameter indicates that the installation will be done in silent mode, meaning that there will be no visible windows during the installation.

Following command line can be used to uninstall the ClickShare launcher in silent mode :

```
msiexec.exe /x ClickShare_Launcher_01_06_00_0144_Setup_Win.msi /qn
```

5.4 ClickShare for Linux

About

The ClickShare Client for Linux consists of two main parts. The first part is the Client itself. The second part is the ClickShare-Launcher. The launcher is installed as a background application that will start the Client from the moment a button is inserted.

The downloaded installer will install both binaries.

Compatibility

ClickShare for Linux is officially supported for Ubuntu 14.04 and Fedora 20 (32 bit and 64 bit version is supported). Other distributions and versions may work depending on library versions.

The user needs administrator rights to run ClickShare. On Ubuntu, the user should be added to the *"plugdev"* group. On Fedora, the user should be added to the *"wheel"* group.

Ubuntu installation

Search the downloaded .deb file and start the installation. Follow the instructions as requested by the installer in the below screens.

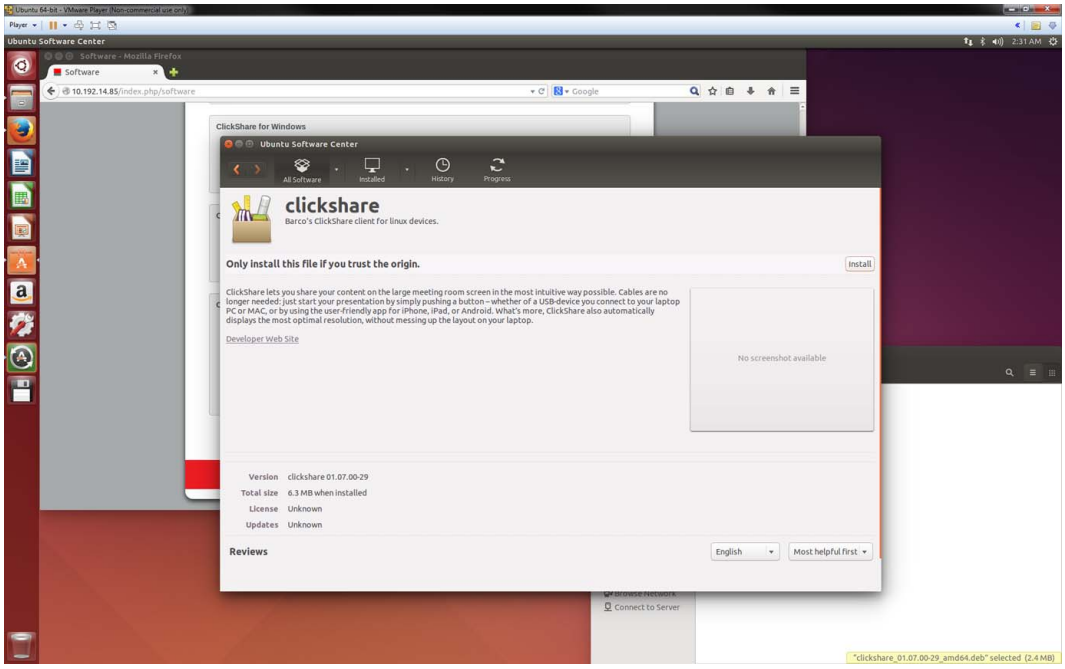


Image 5-7

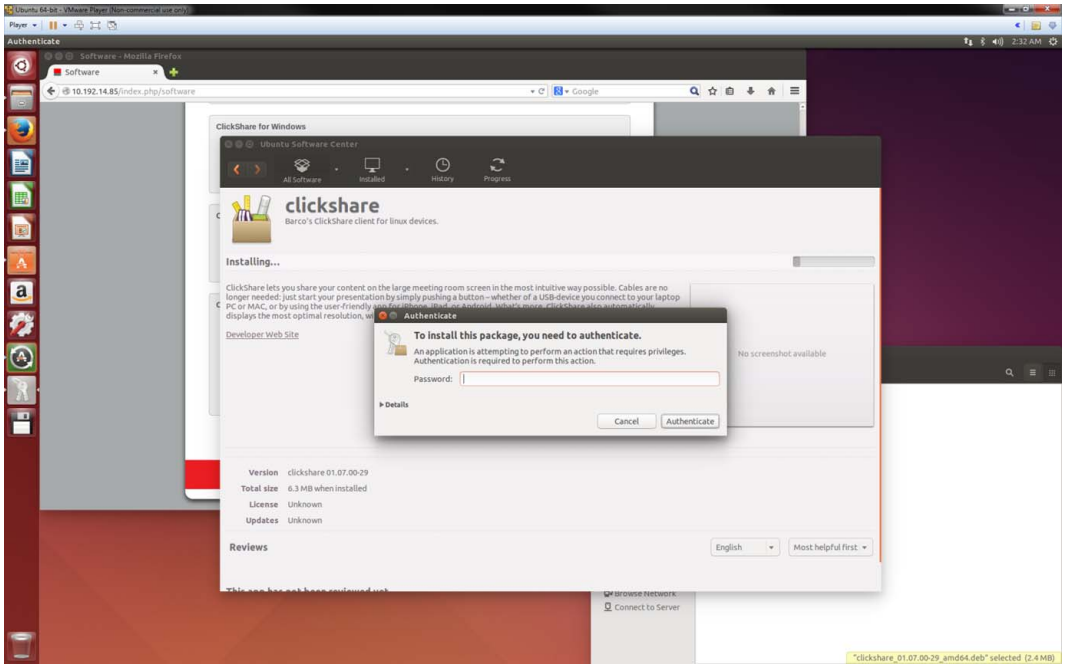


Image 5-8

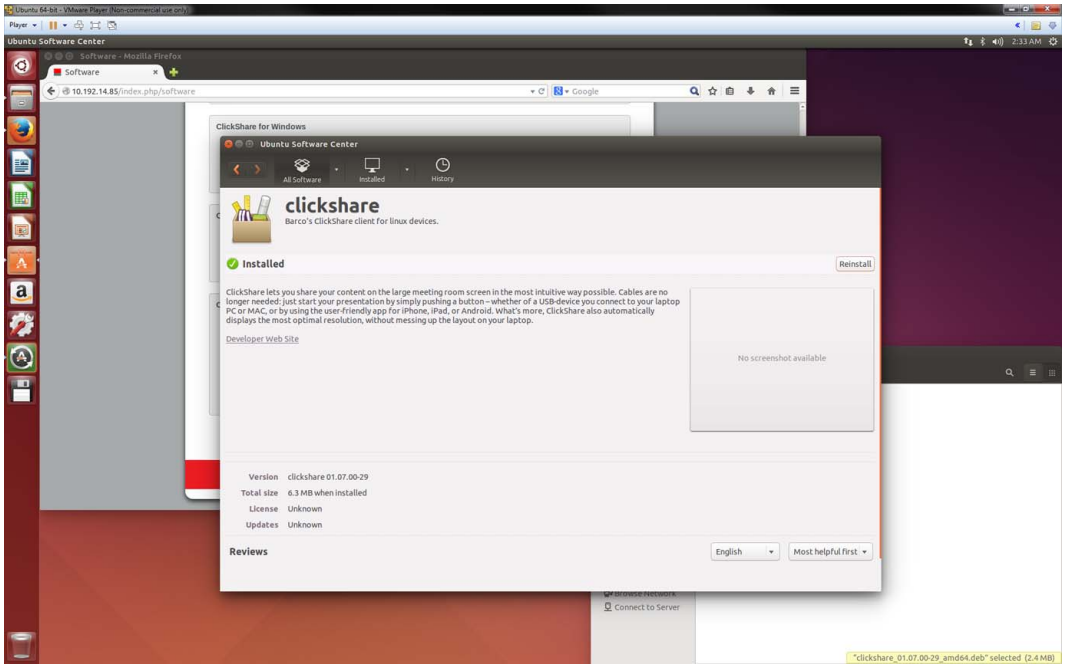


Image 5-9

After installation it is advised to log out and in again to fire up the background process.

Fedora installation

To be able to install ffmpeg, you will need to enable the rpmfusion repository by executing this command:

```
rpm -Uvh http://download1.rpmfusion.org/free/fedora/rpmfusion-free-release-stable.noarch.rpm
http://download1.rpmfusion.org/nonfree/fedora/rpmfusion-nonfree-release-stable.noarch.rpm
```

This command should be executed before you run the installer.

Search the downloaded .rpm file and start the installation. Follow the instructions as requested by te installer in the below screens.

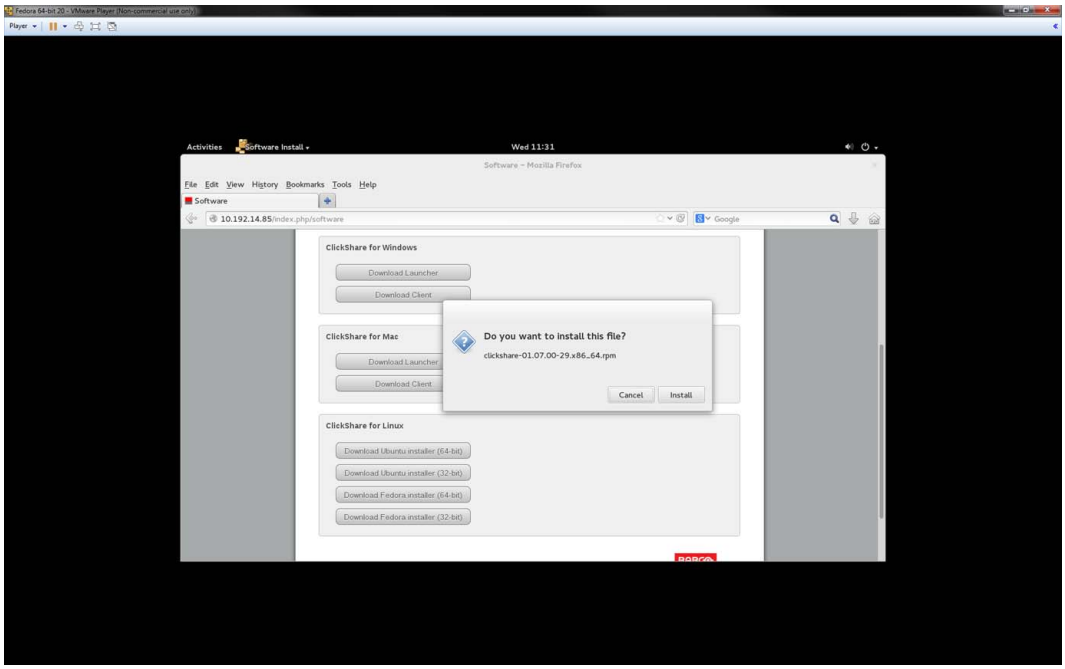


Image 5-10

Click **Install**.

6. WEB INTERFACE

Overview

- Accessing the ClickShare Web Interface
- Language setup Web interface
- About ClickShare tabs
- Basic settings
- Wallpaper (background) selection
- Personalized wallpapers
- Display settings
- Display output settings
- On-screen text format
- Audio settings
- Integration, Polycom
- Corporate network, activation
- Corporate network, using EAP-TLS
- Corporate network, using EAP-TTLS
- Corporate network, using PEAP
- Corporate network, using WPA2-PSK
- Security: HTTPS or HTTP access protocol
- Security: Web User Interface
- Security: access SSH
- Security: Block sharing for Apps
- Advanced settings: Hostname
- Advanced settings: LAN network settings
- Advanced settings: WiFi settings
- Advanced settings: API configuration Settings
- Advanced settings: NTP setup
- Maintenance, status check ClickShare
- Maintenance, Buttons information
- Maintenance, update Buttons over WiFi
- Configured Links
- Calibrating a ClickShare Link
- Base Unit software update
- Downloads from Base Unit (launcher service)
- Manage System Configuration
- Load Default Settings
- Administrator password
- Integrator password
- Log settings
- ClickShare Help, Barco contact data
- Barco ClickShare EULA

6.1 Accessing the ClickShare Web Interface

Getting access to the Web Interface

There are three ways to access the ClickShare Web Interface:

- Via the LAN
- Direct Ethernet connection between PC and Base Unit.
- Via the Base Unit’s wireless network

To access the Web Interface via the LAN

1. Open a browser.
   Note: *Supported browsers are Internet Explorer 8 or higher, Firefox, Google Chrome and Safari.*

2. Browse to the IP address you can find in the top left corner of the ClickShare welcome screen.
   Note: *The Wired IP address is only visible when the Base Unit is connected to the LAN.*

   A login screen appears.

3. Enter the user name 'admin' and the password and click **OK**.

   By default, the password is set to 'admin'.

   The web interface opens.

Image 6-1
Web interface, startup screen

The language of the web interface can be changed. It contains also three tabs: **Setup**, **Maintenance** and **Help**.

If you cannot find the IP address (e.g. there is no screen available) you should connect to the Base Unit directly with your laptop via an Ethernet crossover cable and access the web interface using the fixed IP address 192.168.1.23. Make sure your own LAN adapter is set in the 192.168.1. range.

To access the Web Interface via a direct connection.

1. Connect the Base Unit to your laptop using an Ethernet cable. On some older hardware a crossover cable might be needed.
2. On your laptop, open a browser.
   Note: *Supported browsers are Internet Explorer, Firefox and Safari.*
3. Browse to http://192.168.1.23.

   A login screen appears.

4. Enter the user name 'admin' and the password and click **OK**.
   By default the password is set to 'admin'.

   The web interface opens.

To access the Web Interface via the Base Unit wireless network

1. On your laptop, connect to the Base Unit wireless network.

   The default SSID and password to connect to the Base Unit are respectively 'ClickShare-<serial base number>' and 'clickshare'.

2. On your laptop, open a browser.
   Note: *Supported browsers are Internet Explorer, Firefox and Safari.*
3. Browse to http://192.168.2.1.

   A login screen appears.

4. Enter the user name 'admin' and the password and click **OK**.
   By default the password is set to 'admin'.

   The web interface opens.

Older laptops do not support the 5 GHz Frequency Band. If your Base Unit is set to that frequency range, those devices will not be able to connect to the Base Unit via the wireless network.

6.2 Language setup Web interface

About languages

The ClickShare web interface can be displayed in different languages.

The following languages are possible:

- Arabic
- Simplified Chinese
- Traditional Chinese
- Danish
- Dutch
- English
- Finnish
- French
- German
- Italian
- Japanese
- Korean
- Norwegian
- Portuguese
- Russian
- Spanish
- Swedish

How to change

1. Click on the drop down box next to *Choose language* and select the desired language.

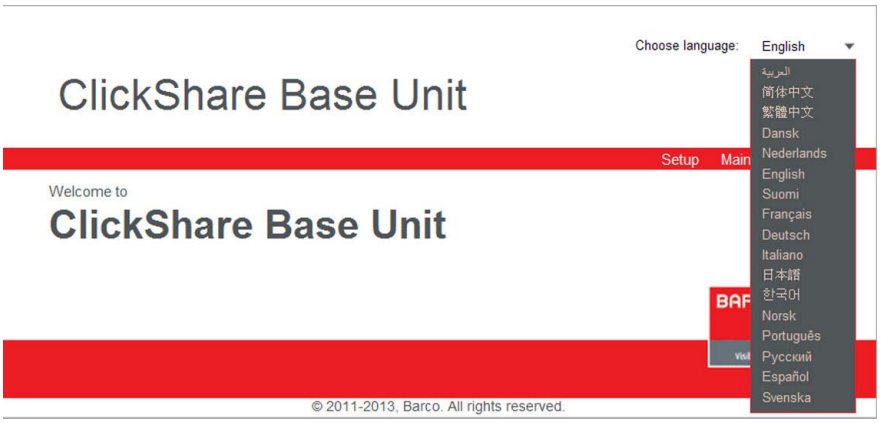


Image 6-2
Language selection

The language of the web interface changes to the selected language.

The language of the web interface can be changed on nearly any page. The ClickShare Web Interface language is independent of the language of the on screen text language which can be set on the Display page.

6.3 About ClickShare tabs

Overview

ClickShare has a main tab bar (red bar with white text) containing 3 tabs, Setup, Maintenance and Help. Each main tab contains sub tabs. The sub tabs are only displayed when a main tab is selected. These sub tabs are displayed in a gray bar. The functionality of these sub tabs is explained in the next topics.

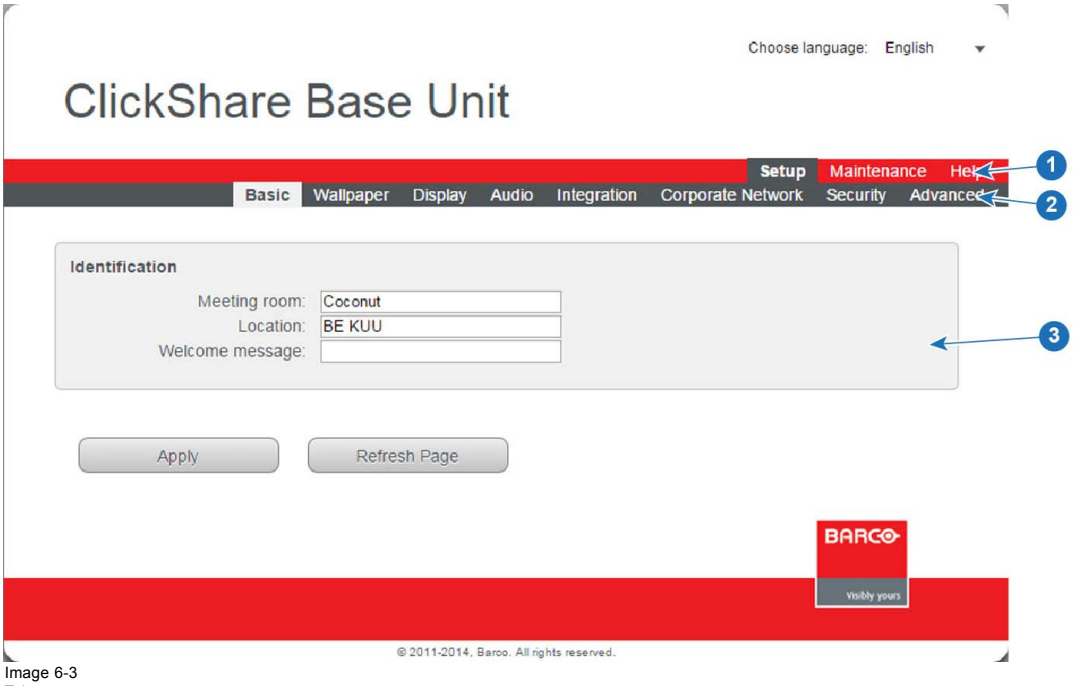


Image 6-3
Tab pages

1	Main tab bar
2	Sub tab bar
3	Information and fill out pane

6.4 Basic settings

About Basic settings

The basic settings contain the following information:

- Meeting room name
- Meeting room location
- Welcome message

To change the basic settings

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab.

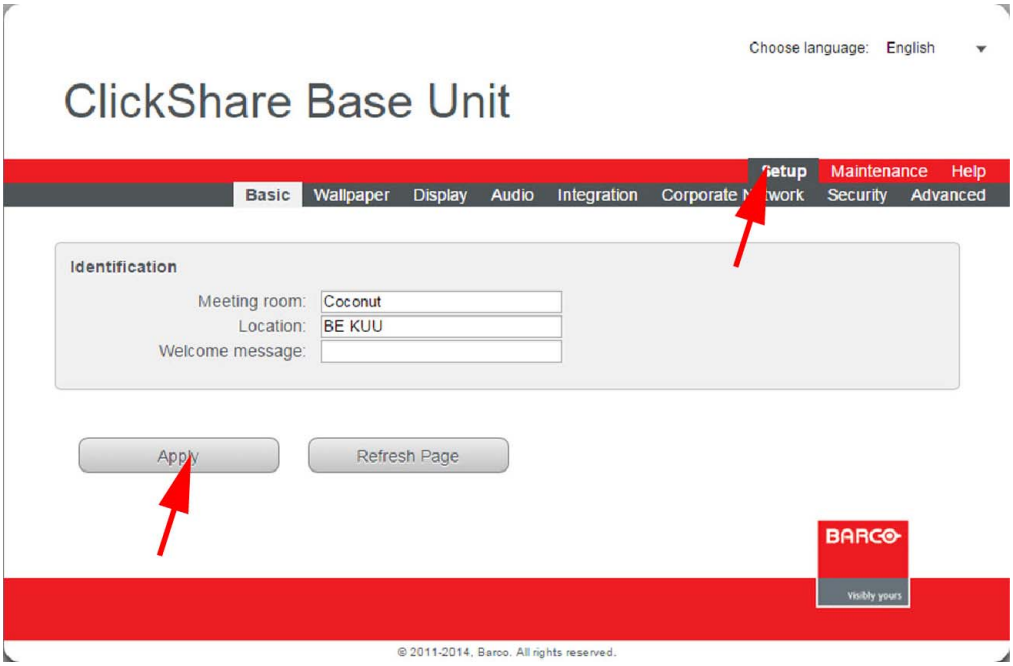


Image 6-4
Setup, basic settings

The **Basic** tab is displayed by default.

3. In the **Identification** section click in an input field and enter
   - the name of the meeting room
   - the location of the meeting room
   - a welcome message which will be displayed below the meeting room name and location.

   Note: *The name of the meeting room is used by the Client software to identify the Base Unit it is connected to.*
4. Click **Apply** to confirm your changes.

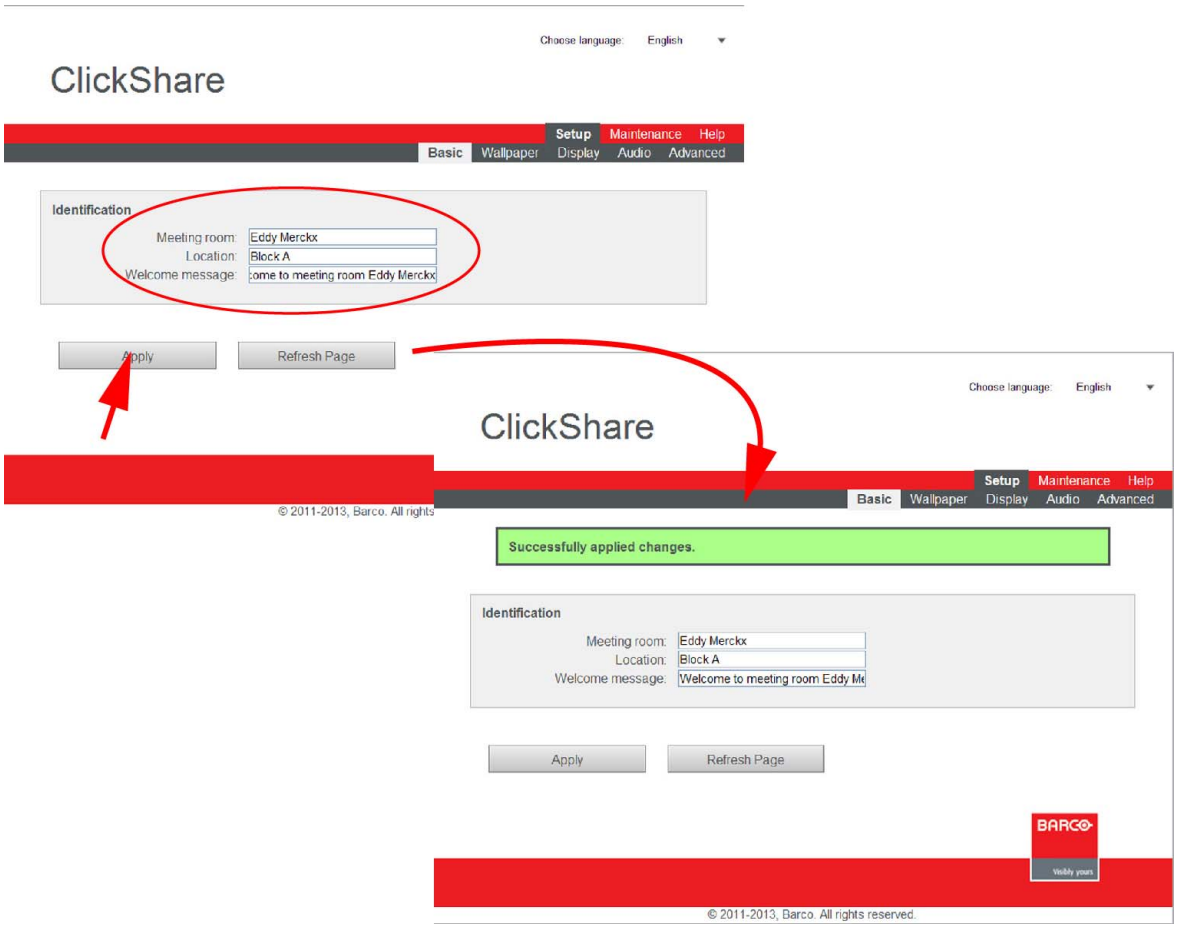


Image 6-5

A message is displayed to indicate that the changes are successful.

The new name, location and welcome message are displayed in the left top corner of the screen.

6.5 Wallpaper (background) selection

About wallpaper

When ClickShare starts up, a background (wallpaper) is displayed. By default a general ClickShare and a quick start wallpaper are available. The possibility exists to upload personal backgrounds (wallpapers).

Wallpaper selection

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and then the **Wallpaper** tab (2).

   The content of the **Wallpaper** tab is displayed.

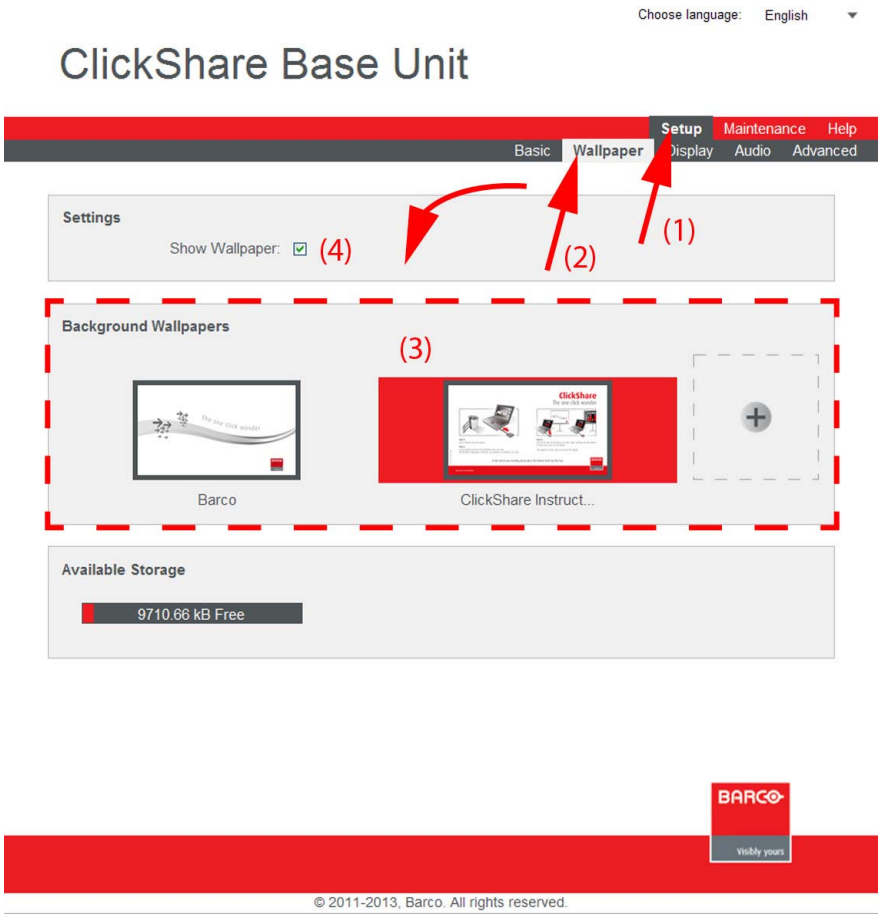


Image 6-6
Wallpaper selection

3. Select one of the available wallpapers (3).
   Note: *By default a general Barco ClickShare wallpaper and a ClickShare Quick Start Guide wallpapers are available.*

   They are automatically resized to fit the aspect ratio of the screen.

   The selected wallpaper is indicated with a red square around the preview. The preview pane shows the selected wallpaper before it is applied.

   The following message appears on top of the wallpaper selection window.

Image 6-7

   The selected wallpaper is now in use.

4. The wallpaper can be switched on or off by checking or unchecking the check box next to *Show wallpaper* (4).

   When the wallpaper is switched off, the display outputs are shut off.

You can also add a personal wallpaper, e.g. your company logo. For more information on adding a new wallpaper to the list, see Managing background wallpapers.

When 2 screens are connected, an extra item *Show Display Identifiers* appears in the Display pane. When checked, a sequence number is displayed on each display.

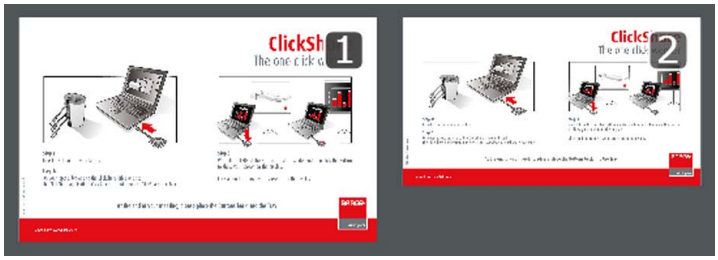


Image 6-8
Display identifiers

6.6 Personalized wallpapers

About a personalized wallpaper

Via the web interface it is possible to upload personalized backgrounds or wallpapers. The free space to upload wallpapers is indicated in the *Available storage* pane.

The upload file should be a JPEG, PNG, BMP or TIFF format with a maximum size of 2.5MB.

Maximum one custom wallpaper can be uploaded. To upload another, the first one needs to be removed first.

How to upload

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and then the **Wallpaper** tab (2).

Image 6-9
Add wallpaper

The **Wallpaper** tab page is displayed.

3. In the *Background wallpapers* pane, click on the "**+**" sign (3).

   A browser window opens.

4. Select the desired file (4) and click **Open** (5).

   The content of the file is checked and when valid (format and size), the file is uploaded (6).

   The message *Successfully applied changes* is displayed on top of the page.

5. Now follow the wall paper selection procedure to activate the personalized wallpaper.

6.7 Display settings

About display settings

The following settings can be configured for the display(s):

- Standby timeout. Time between the last action and moment the system goes into standby.
- Show source name on screen when starting the share.
- Meeting room and network information on the startup screen can be displayed or can be hidden.
- Hot Plug Display detection can be activated so that a display can be connected or unconnected without switching off.
- Display identifiers can be displayed on top of the displayed images (only when 2 displays are connected)

- Resolution of the display can be set.

To change

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and then the **Display** tab (2).

   The content of the **Display** tab is shown. The first pane shows the *Display Settings*.

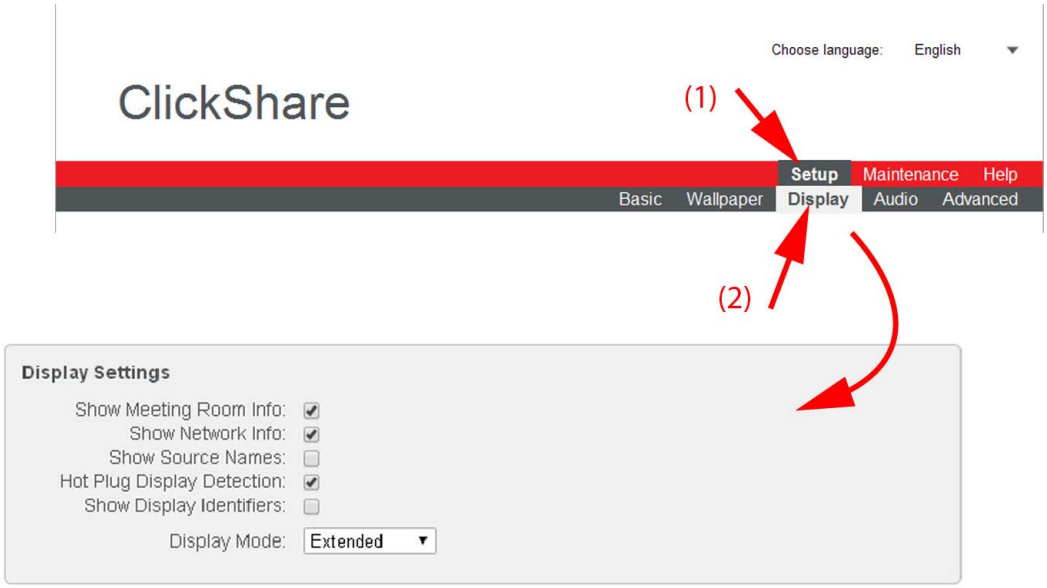


Image 6-10
Display settings

3. To show the meeting room and network info on the meeting room display, check the check box behind the corresponding item.
4. To show the origin of the shared source while starting the sharing, check the check box behind *Show Source Names*.
5. To activate the Hot Plug Display Detection, check the check box behind that item.
6. To show the display identifiers, check the check box behind that item.
7. **Resolution** setup. Click on the drop-down list and select the desired resolution or select **Custom** and enter a resolution manually.
   Note: *By default, the correct resolution is automatically set through the EDID (Extended Display Identification Data).*

   Note: *The maximum output resolution supported by ClickShare is 1920 x 1200. This includes Full HD 1920 x 1080.*
8. To change the display mode, click on the drop down box and select the desired mode.
   - Extended : both displays are combined as one big display.
   - Clone : both displays show the same content
9. Click **Apply** to confirm your changes.

Note about EDID

The timings of the ClickShare Base Unit display output are based on the information contained in the EDID of the meeting room display or projector. Such an EDID contains at least the following information:

- Information on supported “Established Timings” (most legacy timings, e.g. 720x400@70Hz, 88Hz; 800x600@56Hz, 60Hz, 72Hz, 75Hz; ... ; ...)
- Supported Standard Timing Identifications (e.g. 1280x1024@60Hz, 1600x1200@60Hz,...)
- Detailed Timing Information. The first detailed timing description is the “Preferred Timing” of the display and usually the most important information in the EDID. It describes in full detail the preferred timing: pixel clock, active pixels, active lines, blanking, sync width, sync offset (horizontal and vertical),...

About auto resolution

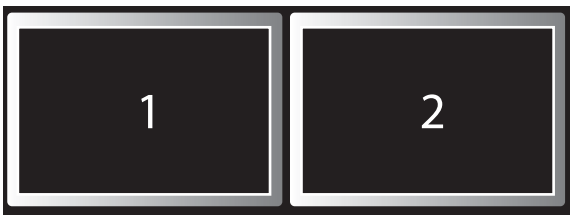
When the ClickShare Base Unit display output is put in auto mode, the display output timings will be based on the Preferred Timing as described in the meeting room display or projector EDID.

About manual resolution setup

When resolution is selected manually, the timings of this resolution are taken from the information described in the meeting room display or projector EDID. If a custom resolution is entered that is not described in the EDID, the timing is generated by the Base Unit following the VESA CVT standard with reduced blanking. The calculation is based on the official VESA calculation.

About Display mode

Extended mode

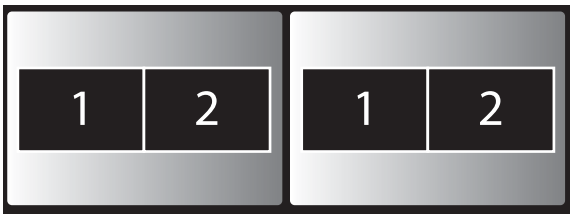


2 users

Image 6-11

The content of multiple users will be divided over both screen.

Clone mode



2 users

Image 6-12

The content of multiple users will be shown on one screen. The content of that first screen will be duplicated on the second screen.

6.8 Display output settings

Screen Saver

A screen saver can be activated after a certain time. The delay time to activate the screen saver can be set via the slider bar.

When the slider is set completely to the right, the screen saver will never be activated. Slide the slider to the left until the desired delay time is reached. This delay time can never be larger than the Display Timeout. A warning will be displayed when the delay time is larger than the display timeout after clicking on **Apply**.

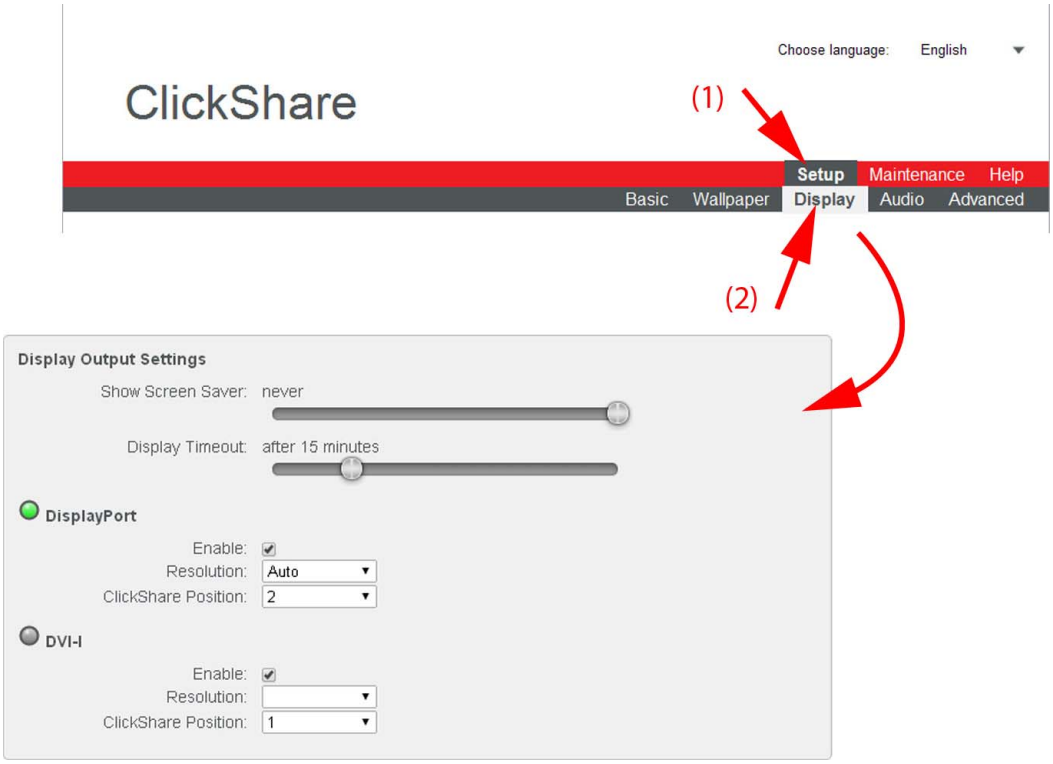


Image 6-13
Output ports

Display Timeout

If there is no input signal detected during the display timeout period, both outputs are set to blank.

The display timeout can be set by moving the slider to the left or right until the desired delay is reached.

Output ports (DisplayPort - DVI-I)

When a port is connected with a display, a green LED before the port name lights up.

Output port enable-disabled

An output can be enabled, what means that a video signal can be sent to the display. Or, a port can be disabled what means that no video signal is sent to the display.

To enable an output port, check the checkbox next to *Enable*.

Resolution

The resolution of the output video signal can be set to the desired value. Select a value which is supported by the connected display.

To select a resolution, click on the drop down box next to *Resolution* and select the desired value.

When *Auto* is selected, the video output signal resolution will be the one that fits best with the connected display and will be based on the Preferred Timing as described in the meeting room display or projector EDID.

When *Custom* is selected, two extra input fields for horizontal and vertical resolution are displayed. The current displayed values are taken from the information described in the meeting room display or projector EDID. Edit the current values with the desired horizontal and vertical resolution. If a custom resolution is entered that is not described in the EDID, the timing is generated by the Base Unit following the VESA CVT standard with reduced blanking. The calculation is based on the official VESA calculation.

ClickShare position

As the base unit supports dual display, an output can be associated with the primary display or with the secondary display. Automatically the second input is associated with the free display.

To change the position, click on the drop down box next to *ClickShare Position* and select the position. The corresponding display is associated with the output port.

6.9 On-screen text format

About on-screen text

The language of the on-screen messages can be changed. Also the color, size and style of the messages can be updated. The background color and the transparency can be adapted so that they match with the text layout.

How to start

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and then the **Display** tab (2).

   The content of the **Display** tab is shown. The last pane shows the *On-screen Text Format*

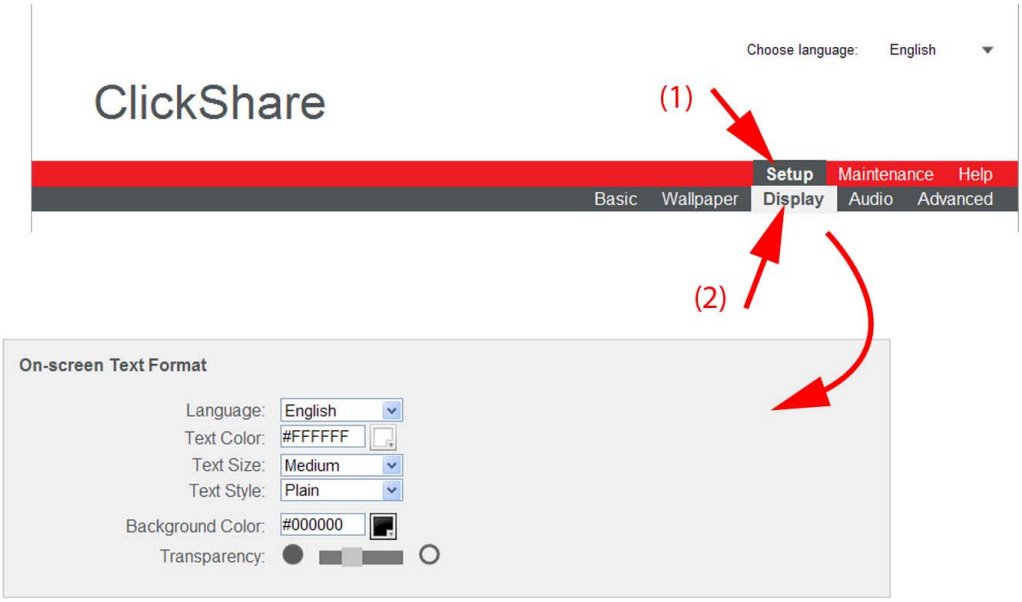


Image 6-14
On-screen text

3. When changes are made, click **Apply** to activate the new settings.
   To cancel the changes, click **Refresh Page**.

Language selection

1. Select the language of the on-screen text. Click on the drop down box next to *Language* and select the desired language.

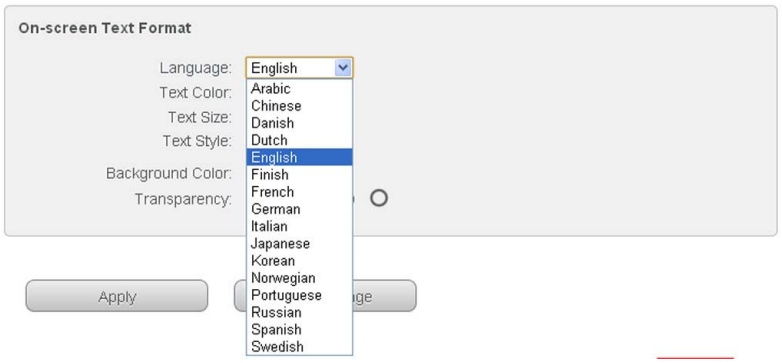


Image 6-15
Language selection

The following languages are possible:

- Arabic
- Simplified Chinese
- Traditional Chinese
- Danish
- Dutch
- English
- Finnish
- French
- German
- Italian
- Japanese
- Korean
- Norwegian
- Portuguese
- Russian
- Spanish
- Swedish

Text color

1. Click in the input field next to *Text color* or click on the color icon (1).

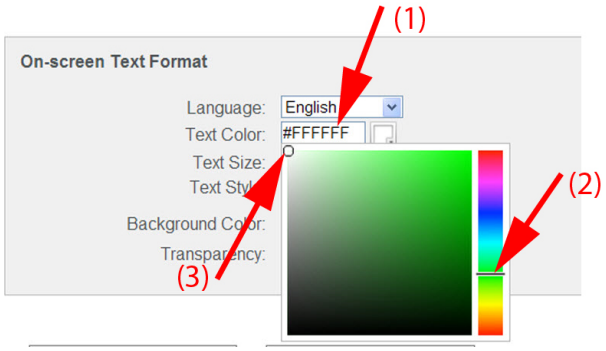


Image 6-16
Text color selection

A color selection window opens.

2. Drag the marker in the color bar up or down until the desired color is obtained (2).
3. To change the tint of the selected color, drag the circler marker in the square until the desired tint is obtained (3).

Text size and style

1. To change the text size, click on the drop down menu and select the desired size.
   The following sizes are possible:
   - Small
   - Medium
   - Large
2. To change the text style, click on the drop down menu and select the desired style.

Background color

1. Click in the input field next to *Background Color* or click on the color icon.

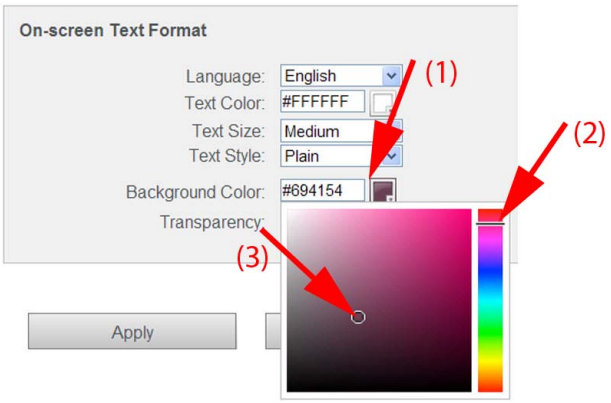


Image 6-17
Background color

2. Drag the marker in the color bar up or down until the desired color is obtained (2).
3. To change the tint of the selected color, drag the circler marker in the square until the desired tint is obtained (3).

Transparency

1. Move the slider to the left or the right to obtain the desired transparency.

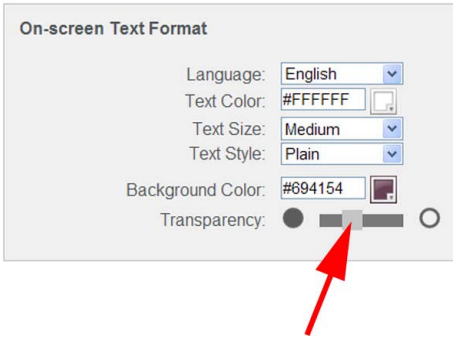


Image 6-18
Transparency

- Slider to the right: more transparency
- Slider to the left: less transparency

6.10 Audio settings

About the audio settings

The audio functionality can be disabled or enabled. When the enable and/or disable setting is changed, the Buttons must be re-paired before the setting becomes active.

Audio can be output via mini jack (analog) or via the DisplayPort output (digital).

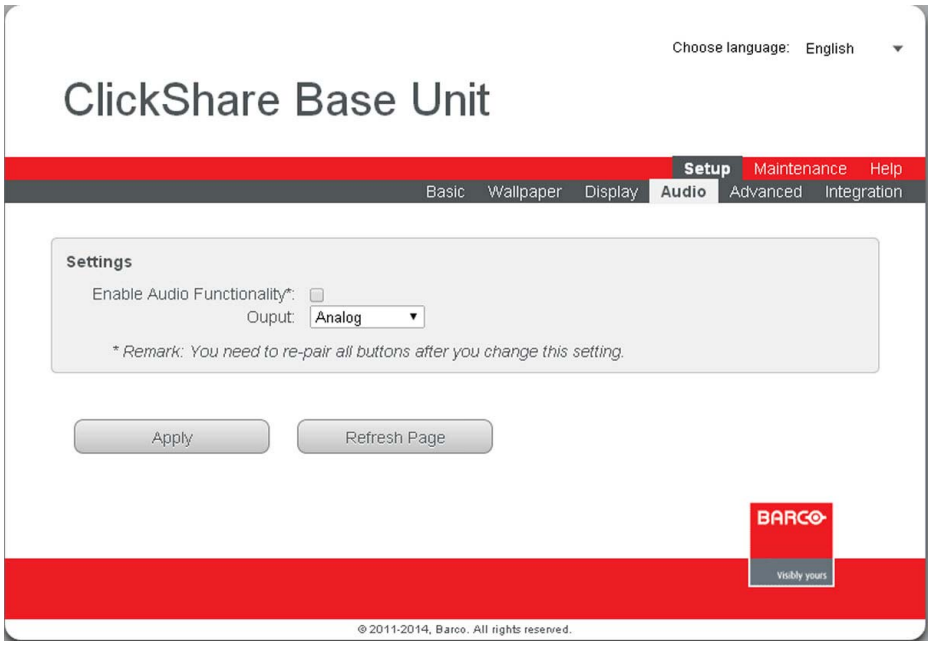


Image 6-19
Audio settings

How to change

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab and then the **Audio** tab.
3. To enable audio on the Base Unit, check the check box next to *Enable Audio Functionality*.
   Note: *Changing the audio setting, requires a re-pairing of the Buttons.*
4. To select the audio output method, click on the drop down box and select the desired output method.
   - analog : output via mini jack
   - digital : output via DisplayPort

   Default setting : analog

6.11 Integration, Polycom

About the integration

When both, ClickShare and Polycom systems are installed in a meeting room, typically the video output of the ClickShare Base Unit is connected to the Polycom unit as a source input. In this case, a user can share content using ClickShare, which is then shown on the Polycom system.

Depending on the design and configuration of the Polycom system, the last content that arrives to the Polycom system is considered to be the current content and is shown on the display. Therefore, the ClickShare Polycom integration must overcome that the ClickShare Button keeps sharing while other content is shown.

To setup the integration the ClickShare Base Unit and the Polycom system need to be connected to the same network.

How to enable

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Integration** (2).

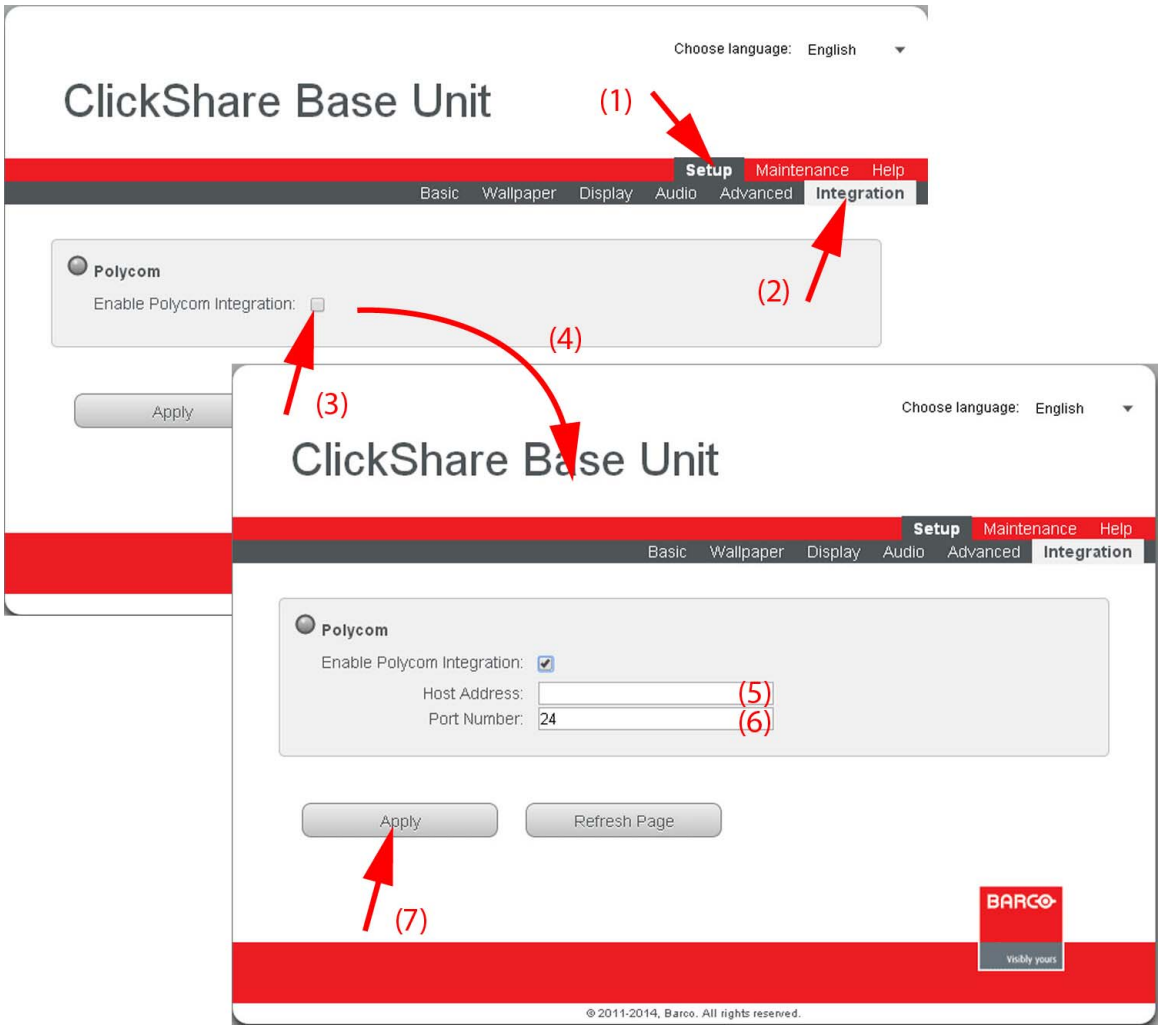


Image 6-20
Integration, Polycom

3. To enable Polycom integration, check the check box next to *Enable Polycom Integration* (3).

   The user is asked to fill in the IP address or hostname (5) of the target Polycom unit together with the Telnet port[1] (6) that allows sending API commands.

4. Click **Apply** (7).

   Once the integration is enabled, the ClickShare Base Unit will enter to the standby mode if there is no sharing ClickShare Button.

   As soon as the connection is established between the two systems[2], the ClickShare Base Unit sends “notify vidsourcechanges” API command to the Polycom unit. From that moment on, if content coming from ClickShare is taken out from the display by the Polycom unit , all ClickShare Buttons that are currently sharing content will go to Ready to Share mode and the ClickShare Base Unit will go to the standby mode. The client can start sharing again by clicking to their buttons and their content will be shown on the display.

   In case of an error, the LED will turn to red and an error string will be shown.

Disable the connection

1. Uncheck the check box next to *Enable Polycom Integration*.
2. Click **Apply**.

   The ClickShare Base Unit will send “nonotify vidsourcechanges” API command to the Polycom unit and the connection will be closed.

1. Telnet port is set to 24 by default.
2. Since establishing the connection may take some time, refreshing the current page may be necessary to see the latest status of the connection.

6.12 Corporate network, activation

Start up

Due to the complexity of the ClickShare Network Integration feature, you must activate it first. To activate, go to the Corporate Network tab and click on the button which brings you to a request page. Enter the details regarding your ClickShare deployment and network configuration. After receiving your request, we check whether or not the feature can be enabled in your environment. If so, you will receive an activation code that should be enter in the Base Unit's WebUI to get access to this feature.

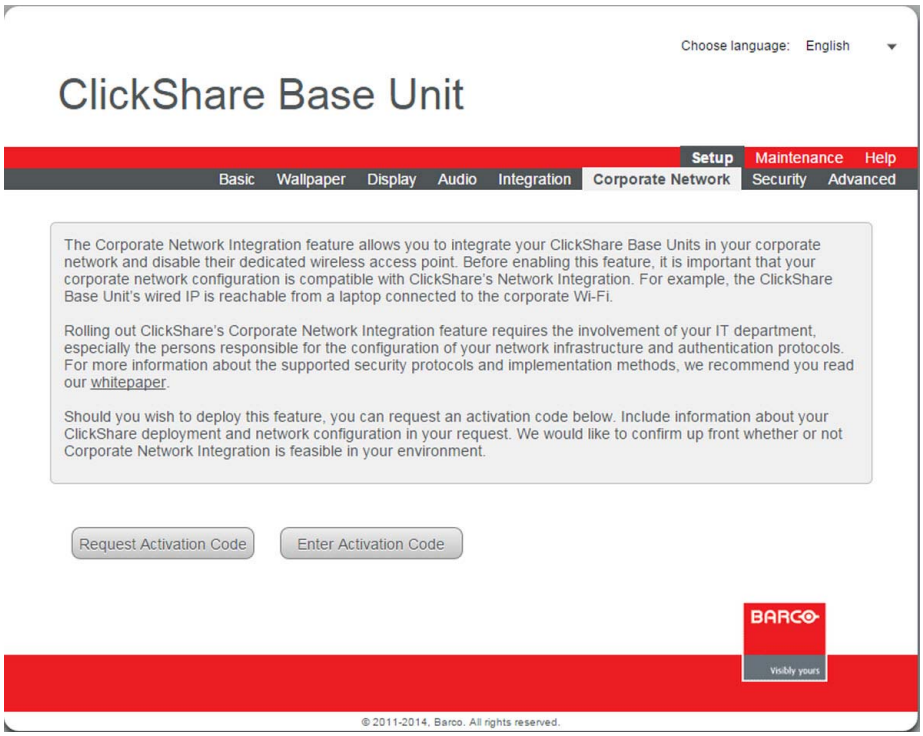

Choose language: English
ClickShare Base Unit
Setup
Maintenance
Help
Basic
Wallpaper
Display
Audio
Integration
Corporate Network
Security
Advanced
The Corporate Network Integration feature allows you to integrate your ClickShare Base Units in your corporate network and disable their dedicated wireless access point. Before enabling this feature, it is important that your corporate network configuration is compatible with ClickShare's Network Integration. For example, the ClickShare Base Unit's wired IP is reachable from a laptop connected to the corporate Wi-Fi.
Rolling out ClickShare's Corporate Network Integration feature requires the involvement of your IT department, especially the persons responsible for the configuration of your network infrastructure and authentication protocols. For more information about the supported security protocols and implementation methods, we recommend you read our whitepaper.
Should you wish to deploy this feature, you can request an activation code below. Include information about your ClickShare deployment and network configuration in your request. We would like to confirm up front whether or not Corporate Network Integration is feasible in your environment.
Request Activation Code
Enter Activation Code
BARCO
Visibly yours
© 2011-2014, Barco. All rights reserved.

Image 6-21

Click **Request Activation Code** to request a code.

Click **Enter Activation Code** to enter the delivered code.

Request activation code

Your browser opens a static form on the Barco web site.

Fill out the form and send it to Barco.

Enter activation code

An input window opens.

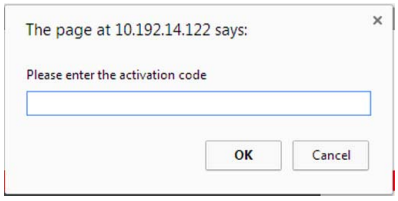


Image 6-22

Click in that input field, enter the delivered code and click **OK**.

The code is checked and the start wizard screen is displayed.

6.13 Corporate network, using EAP-TLS

About EAP-TLS

EAP-TLS (Transport Layer Security) is an EAP method based on certificates which allows mutual authentication between client and server. It requires a PKI (Public Key Infrastructure) to distribute server and client certificates. For some organizations this might be too big of a hurdle, for those cases EAP-TTLS and PEAP provide good alternatives. Even though a X.509 client certificate is not

strictly required by the standard it is mandatory in most implementations including for ClickShare. When implemented using client certificates, EAP-TLS is considered one of the most secure EAP methods. The only minor disadvantage is that the user identity is transmitted in the clear before the actual TLS handshake is performed.

How to start up for EAP-TLS

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Corporate Network** (2).

Image 6-23
Corporate network, EAP-TLS

3. Click **Start Wizard** (3) to start up the configuration process.

   The Security Mode selection window opens (4).
4. Select the radio button next to *EAP-TLS* (5) and click **Next** (6).

The EAP-TLS mode window opens.
Two choices are possible:

- Auto alignment via SCEP
- Manually provide Client & CA certificates

Using SCEP

Select the radio button next to *Auto enrollment via SCEP* and click **Next**.

The Simple Certificate Enrolment Protocol (SCEP) is a protocol which enables issuing and revoking of certificates in a scalable way. SCEP support is included to allow a quicker and smoother integration of the ClickShare Base Unit and Buttons into the corporate network. Since most companies are using Microsoft Windows Server and its active directory (AD) to manage users and devices our SCEP implementation is specifically targeted at the Network Device Enrolment Service (NDES) which is part of Windows Server 2008 R2 and Windows Server 2012. No other SCEP server implementations are supported.

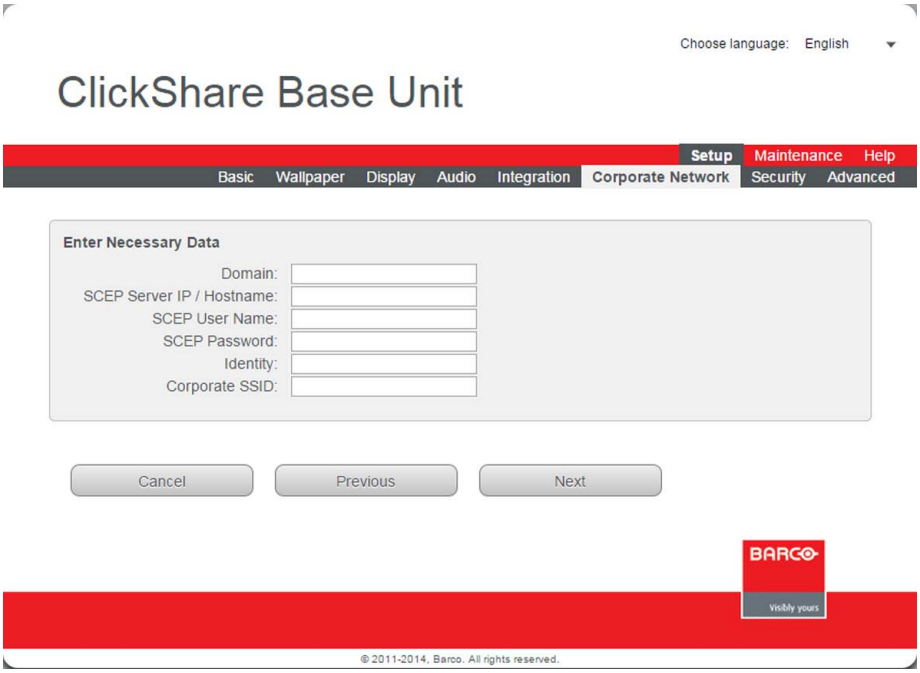


Image 6-24
SCEP protocol

About NDES

The Network Device Enrolment Service is Microsoft's server implementation of the SCEP protocol. If you want to enable EAP-TLS using SCEP make sure NDES is enabled, configured and running on your Windows Server. For more details about setting up NDES, please visit the Microsoft website[3]. SCEP uses a so called *"challenge password"* in order to authenticate the enrollment request. For NDES, this challenge can be retrieved from your server at: http(s)://[your-server-hostname]/CertSrv/mscep_admin.

If you enter the necessary credentials into the setup wizard the Base Unit will automatically retrieve this challenge from the web page and use it in the enrollment request thereby fully automating the process.

Necessary Data to continue:

Domain	The company domain for which you are enrolling, should match with the one defined in your Active Directory.
SCEP ServerIP/host-name	This is the IP or hostname of the Windows Server in your network running the NDES service. Since Internet Information Services (IIS) supports both HTTP and HTTPS, also include which of the two you want to use. If not provided it will be default set to HTTP.
SCEP User name	This is a user in your Active Directory which has the required permission to access the NDES service and request the challenge password. To be sure of this, the user should be part of the CA Administrators group (in case of a stand-alone CA) or have enroll permissions on the configured certificate templates.
SCEP Password	This is the password of the User Account used as SCEP User name. The password is never stored on the Base Unit. It is only kept in memory just long enough to request the Challenge Password from the server after which it is removed from memory immediately.

3. NDES White Paper: http://social.technet.microsoft.com/wiki/contents/articles/9063.network-device-enrollment-service-ndes-in-active-directory-certificate-services-ad-cs-en-us.aspx

Identity	Identity of the user account in the Active Directory which will be used by the ClickShare Buttons to connect to the corporate network. When using EAP-TLS make sure that the necessary mapping exists between the Client Certificate issued by your CA and this user account.
Corporate SSID	The SSID of your corporate wireless infrastructure to which the ClickShare Buttons will connect.

Using manually upload of certificates

Select the radio button next to *Provide certificates manually* and click **Next**.

If your current setup doesn't support SCEP or you prefer not to use it but you still want to benefit of the mutual authentication EAP-TLS offers, it is also possible to manually upload the necessary certificates.

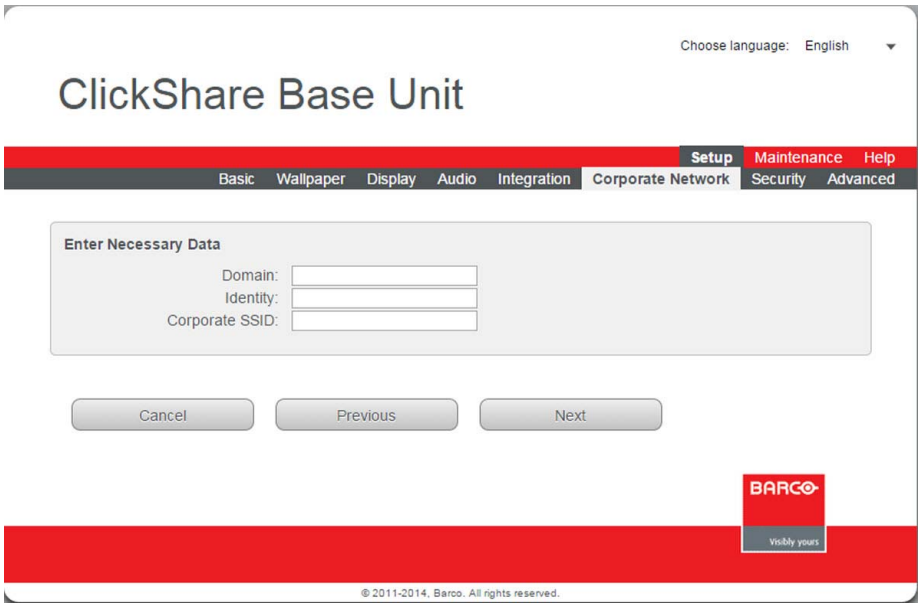


Image 6-25

Necessary Data to continue:

Domain	The company domain for which you are enrolling, should match with the one defined in your Active Directory.
Identity	Identity of the user account in the Active Directory which will be used by the ClickShare Buttons to connect to the corporate network. When using EAP-TLS make sure that the necessary mapping exists between the Client Certificate issued by your CA and this user account.
Corporate SSID	The SSID of your corporate wireless infrastructure to which the ClickShare Buttons will connect.

Click **Next** to continue with the upload of the client certificate.

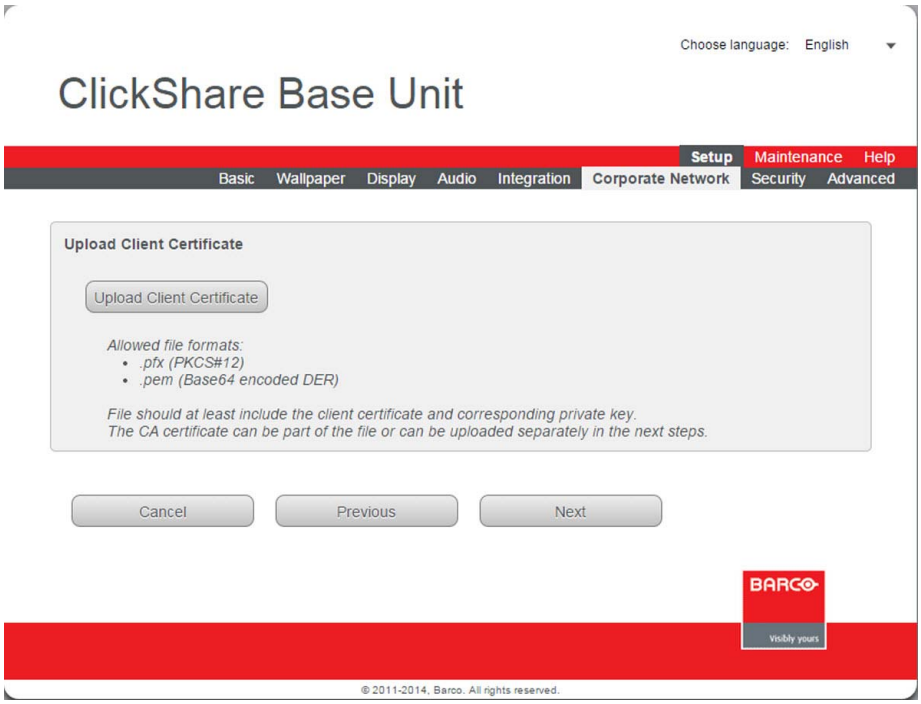


Image 6-26

Click **Upload Client Certificate**.

The client certificate you provide should be signed by the authoritative root CA in your domain and should be linked to the user you specify in the Identity field. Also, make sure that the client certificate you provide contains the private key – this is necessary to set up the TLS connection successfully.

ClickShare supports 2 formats for uploading a client certificate:

- *PKCS#12 (.pfx)* - An archive file format for storing multiple cryptography objects.
- *Privacy Enhanced Mail (.pem)* – A Base64 encoded DER certificate stored between 2 tags: `"-----BEGIN CERTIFICATE-----"` and `"-----END CERTIFICATE-----"`.

When the provided PKCS#12 file also contains the necessary CA certificate the Base Unit will extract it and verify the chain of trust to avoid that you have to separately provide the CA certificate.

CA certificate

The CA certificate is the certificate of the authoritative root CA in your domain and will be used in setting up the EAP-TLS connection. During the wizard the Base Unit will ensure that it can validate the chain of trust between the Client and CA certificates you provide.

ClickShare supports the common .crt file extension which can contain a Base64 encoded DER certificate.

When having problems connecting the Button to your corporate network, to get feedback from the Button please have a look at the ClickShare Client log. This log can be enabled by holding shift when starting the Client executable. Look for the lines *"EDSUSBDongleConnection::mpParseDongleMessages"*. An error code and a short summary of the issue should be logged.

6.14 Corporate network, using EAP-TTLS

About EAP-TTLS

EAP-TTLS (Tunneled Transport Layer Security) is an EAP implementation by Juniper networks. It is designed to provide authentication that is as strong as EAP-TLS, but it does not require each user to be issued a certificate. Instead, only the authentication servers are issued certificates. User authentication is performed by password, but the password credentials are transported in a securely encrypted tunnel established based upon the server certificates.

User authentication is performed against the same security database that is already in use on the corporate LAN: for example, SQL or LDAP databases, or token systems. Since EAP-TTLS is usually implemented in corporate environments without a client certificate we have not included support for this. If you prefer using client certificates per user we suggest using EAP-TLS.

How to start up for EAP-TTLS

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Corporate Network** (2).

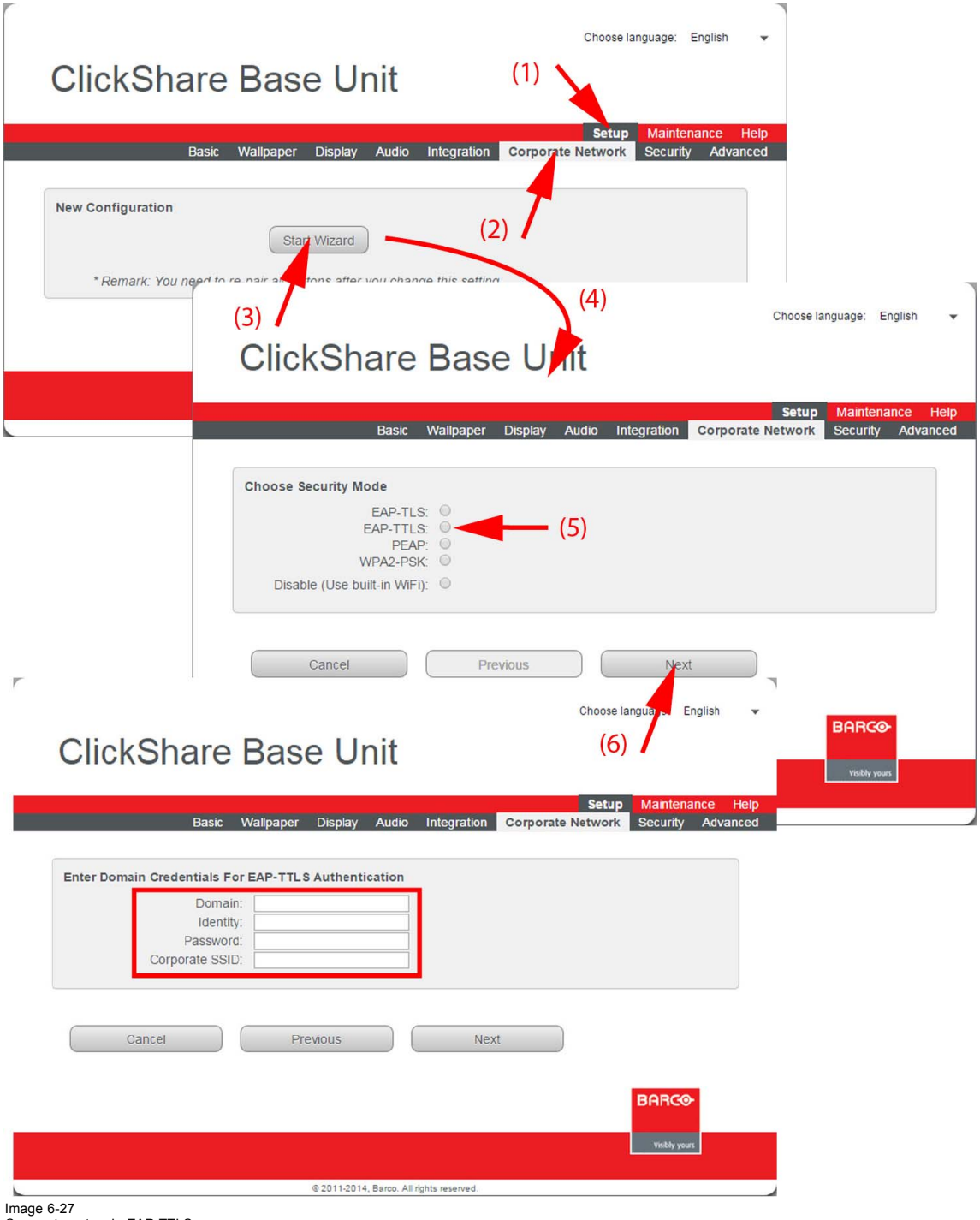


Image 6-27
Corporate network, EAP-TTLS

3. Click **Start Wizard** (3) to start up the configuration process.

   The Security Mode selection window opens (4).
4. Select the radio button next to *EAP-TTLS* (5) and click **Next** (6).

The EAP-TTLS mode window opens.

Necessary Data to continue:

Domain	The company domain for which you are enrolling, should match with the one defined in your Active Directory.
Identity	Identity of the user account in the Active Directory which will be used by the ClickShare Buttons to connect to the corporate network.
Password	The corresponding password for the identity that you are using to authenticate on the corporate network. Per Base Unit each Button will use the same identity and password to connect to the corporate network.
Corporate SSID	The SSID of your corporate wireless infrastructure to which the ClickShare Buttons will connect.

Click **Next** to continue.

When having problems connecting the Button to your corporate network, to get feedback from the Button please have a look at the ClickShare Client log. This log can be enabled by holding shift when starting the Client executable. Look for the lines *"EDSUSBDongleConnection::mpParseDongleMessages"*. An error code and a short summary of the issue should be logged.

6.15 Corporate network, using PEAP

About PEAP

PEAP (Protected Extensible Authentication Protocol) is an EAP implementation co-developed by Cisco Systems, Microsoft and RSA Security. It sets up a secure TLS tunnel using the servers CA certificate after which actual user authentication takes place within the tunnel. This way of working enables it to use the security of TLS while authenticating the user but without the need for a PKI. Which actual method is used to authenticate within the tunnel is not mandated by the standard. But throughout the documentation when talking about PEAP we are referring to PEAPv0 with EAP-MSCHAPv2 as the inner authentication method. This is one of the two certified PEAP implementations in the WPA and WPA2 standards and by far the most common and widespread implementation of PEAP.

How to start up for PEAP

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Corporate Network** (2).

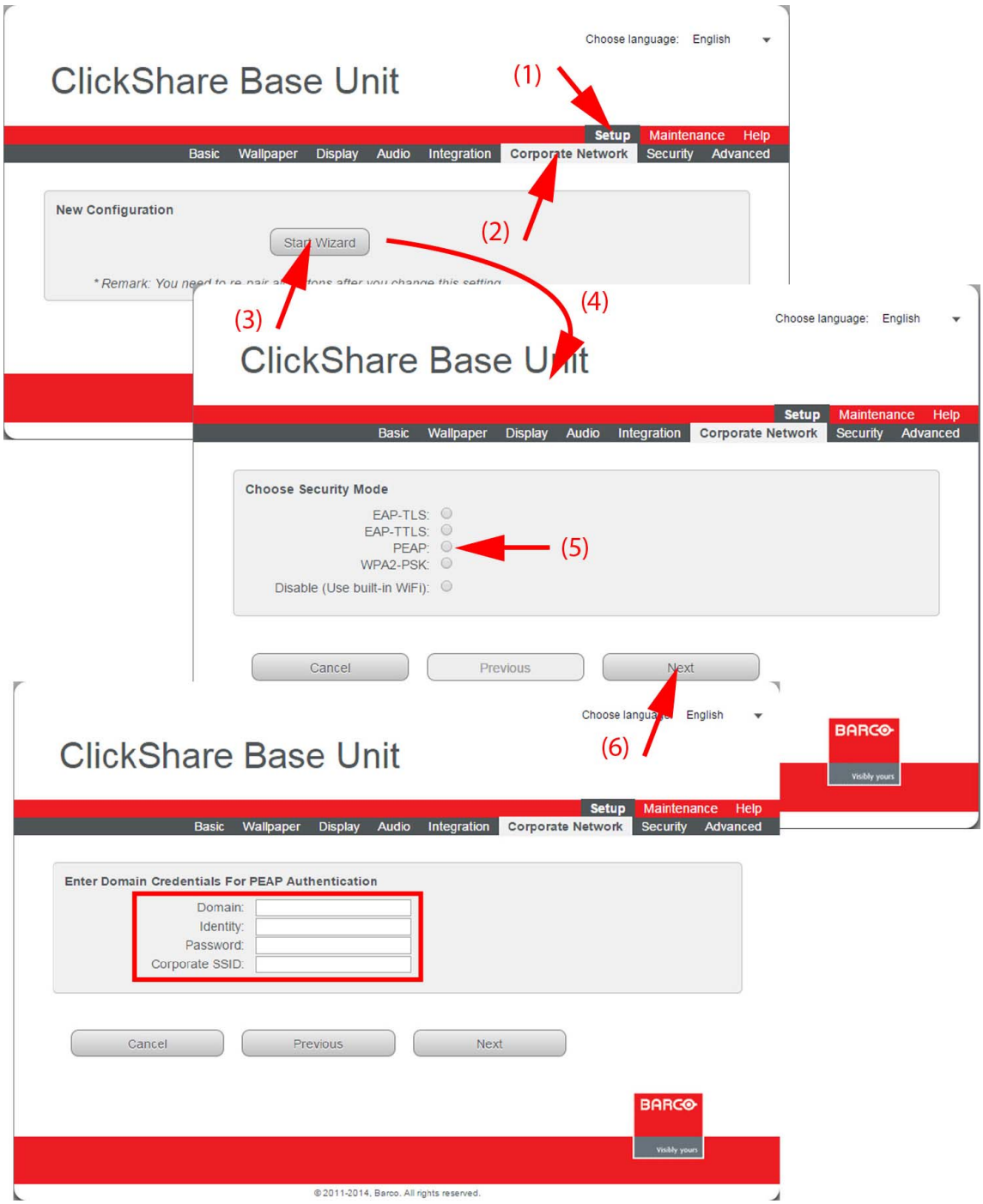


Image 6-28
Corporate network, PEAP

3. Click **Start Wizard** (3) to start up the configuration process.

   The Security Mode selection window opens (4).

4. Select the radio button next to *PEAP* (5) and click **Next** (6).

The PEAP mode window opens.

Necessary Data to continue:

Domain	The company domain for which you are enrolling, should match with the one defined in your Active Directory.
Identity	Identity of the user account in the Active Directory which will be used by the ClickShare Buttons to connect to the corporate network.
Password	The corresponding password for the identity that you are using to authenticate on the corporate network. Per Base Unit each Button will use the same identity and password to connect to the corporate network.
Corporate SSID	The SSID of your corporate wireless infrastructure to which the ClickShare Buttons will connect.

Click **Next** to continue.

When having problems connecting the Button to your corporate network, to get feedback from the Button please have a look at the ClickShare Client log. This log can be enabled by holding shift when starting the Client executable. Look for the lines *"EDSUSBDongleConnection::mpParseDongleMessages"*. An error code and a short summary of the issue should be logged.

6.16 Corporate network, using WPA2-PSK

About WPA2-PSK

WPA2-PSK does not distinct between individual users, there is 1 password (PSK – Pre-Shared Key) for all clients connecting to the wireless infrastructure. As such setup is very straightforward. Once connected all data transmitted between client and AP (access point) is encrypted using a 256 bit key.

How to start up for WPA2-PSK

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Corporate Network** (2).

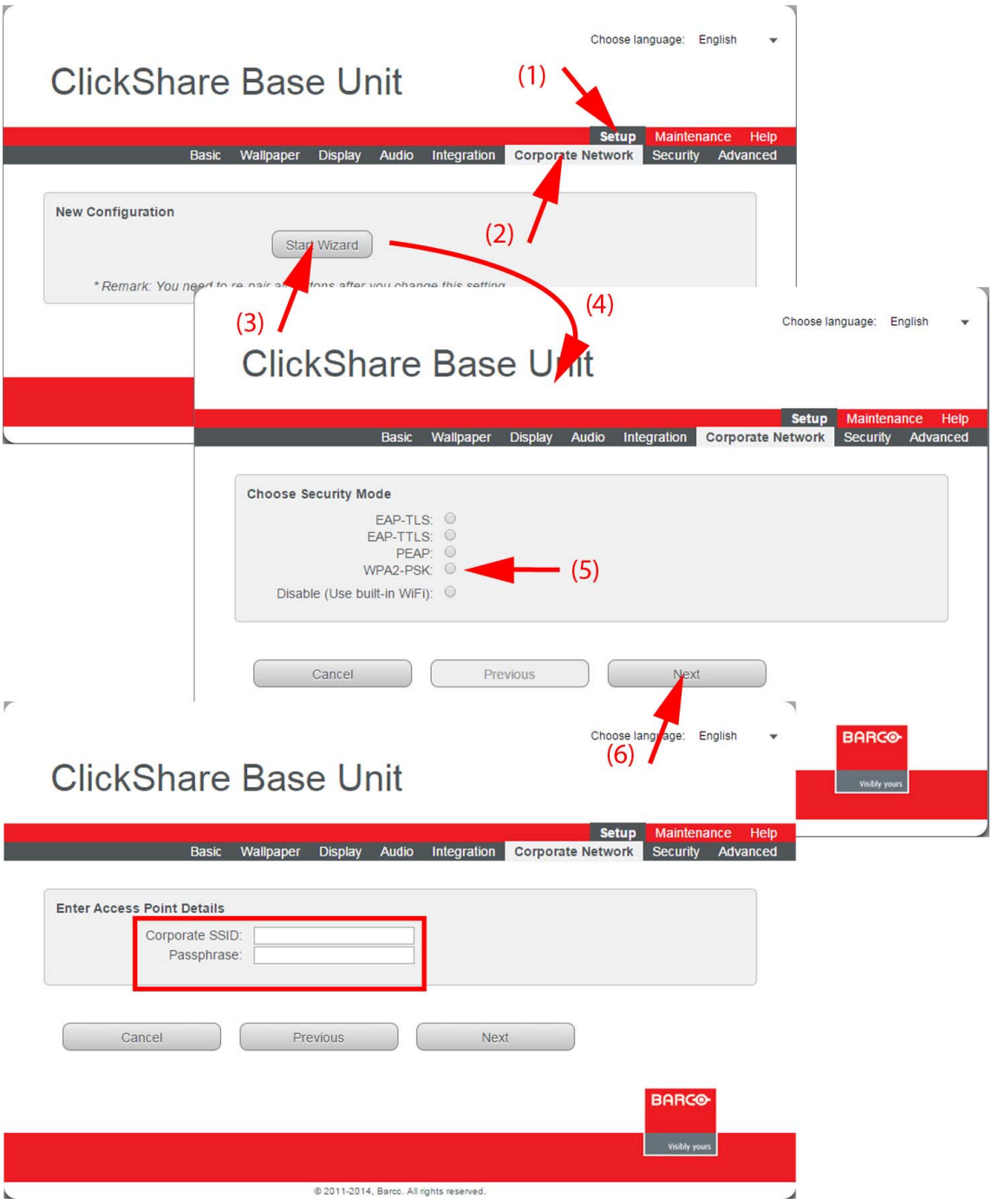


Image 6-29
Corporate network, WPA2-PSK

3. Click **Start Wizard** (3) to start up the configuration process.

   The Security Mode selection window opens (4).

4. Select the radio button next to *WPA2-PSK* (5) and click **Next** (6).

   The WPA2-PSK mode window opens.

   Necessary Data to continue:

Corporate SSID	The SSID of your corporate wireless infrastructure to which the ClickShare Buttons will connect.
Passphrase (Pre-shared key)	The key used in WPA2-PSK to authenticate onto the wireless infrastructure. This can be a string of 64 hexadecimal digits or a passphrase of 8 to 63 printable ASCII characters.

   Click **Next** to continue.

   When having problems connecting the Button to your corporate network, to get feedback from the Button please have a look at the ClickShare Client log. This log can be enabled by holding shift when starting the Client executable. Look for the lines *"EDSUSBDongleConnection::mpParseDongleMessages"*. An error code and a short summary of the issue should be logged.

6.17 Security: HTTPS or HTTP access protocol

About HTTP or HTTPS

Hypertext Transfer Protocol Secure (HTTPS) is a communications protocol for secure communication over the network with the ClickShare Base unit. The security is based on the underlaying security capabilities of SSL/TLS. It uses long-term public and secret keys to exchange a short term session key to encrypt the data flow between the computer and the Base unit.

How to make the selection

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Security** (2).

Image 6-30
HTTP or HTTPS

Within the HTTPS pane, the status is indicated next to *Enabled*.

- When No, no HTTPS is used.
- When Yes, HTTPS is used.

3. Click on **Start Wizard** to change the current status (3).

   The *Choose security* window opens.

4. Select the radio button of your choice (4) and click **Next** (5).

HTTPS via Generate Certificates

Select the radio button next to *Generate certificate* (6) and click **Next** to continue (7).

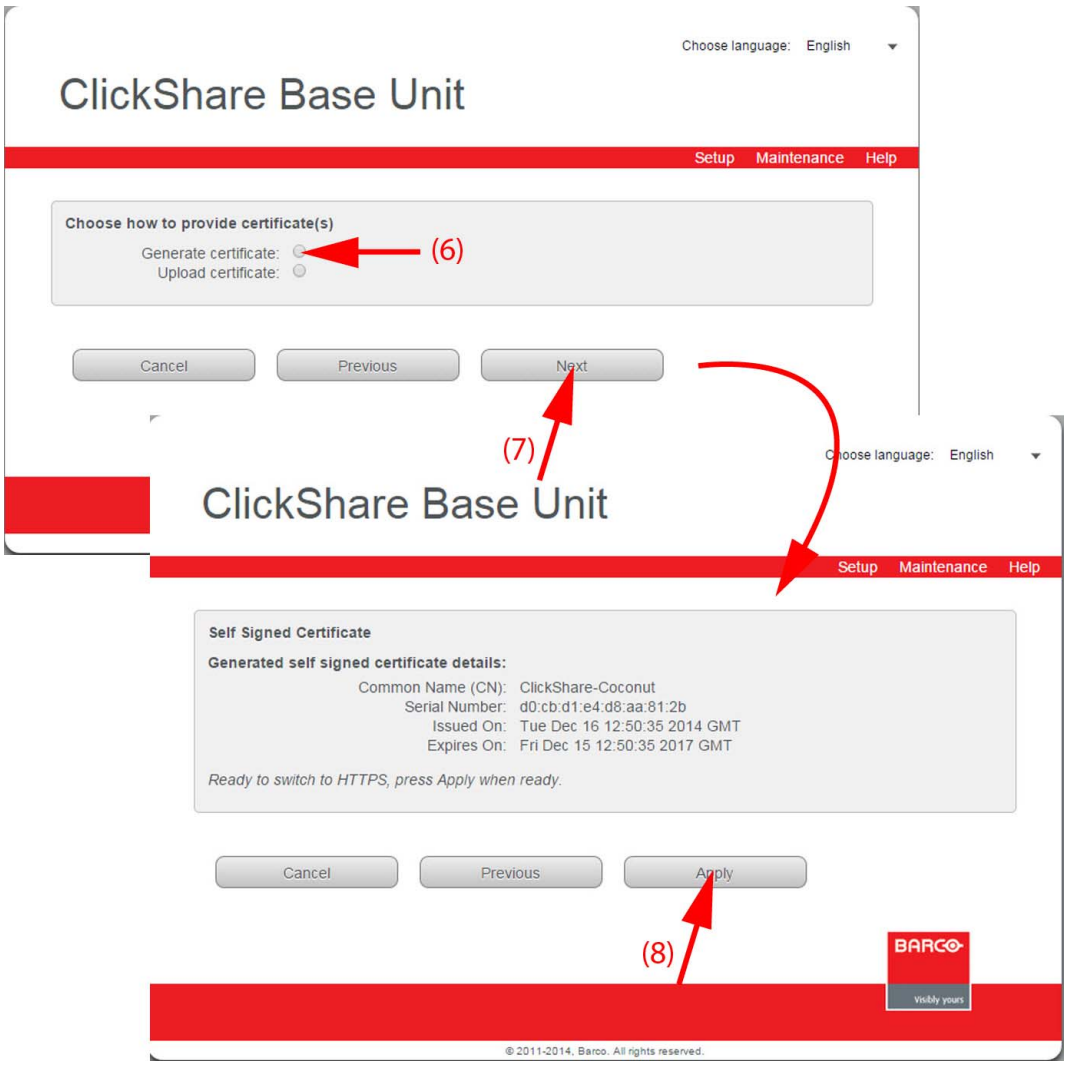


Image 6-31
HTTPS, generate certificate

A self signed certificate is created. This certificate is valid for 3 years.

Click **Apply** to switch to the HTTPS communication (8).

HTTPS via upload certificates

Select the radio button next to *Upload certificate* (6) and click **Next** to continue (7).

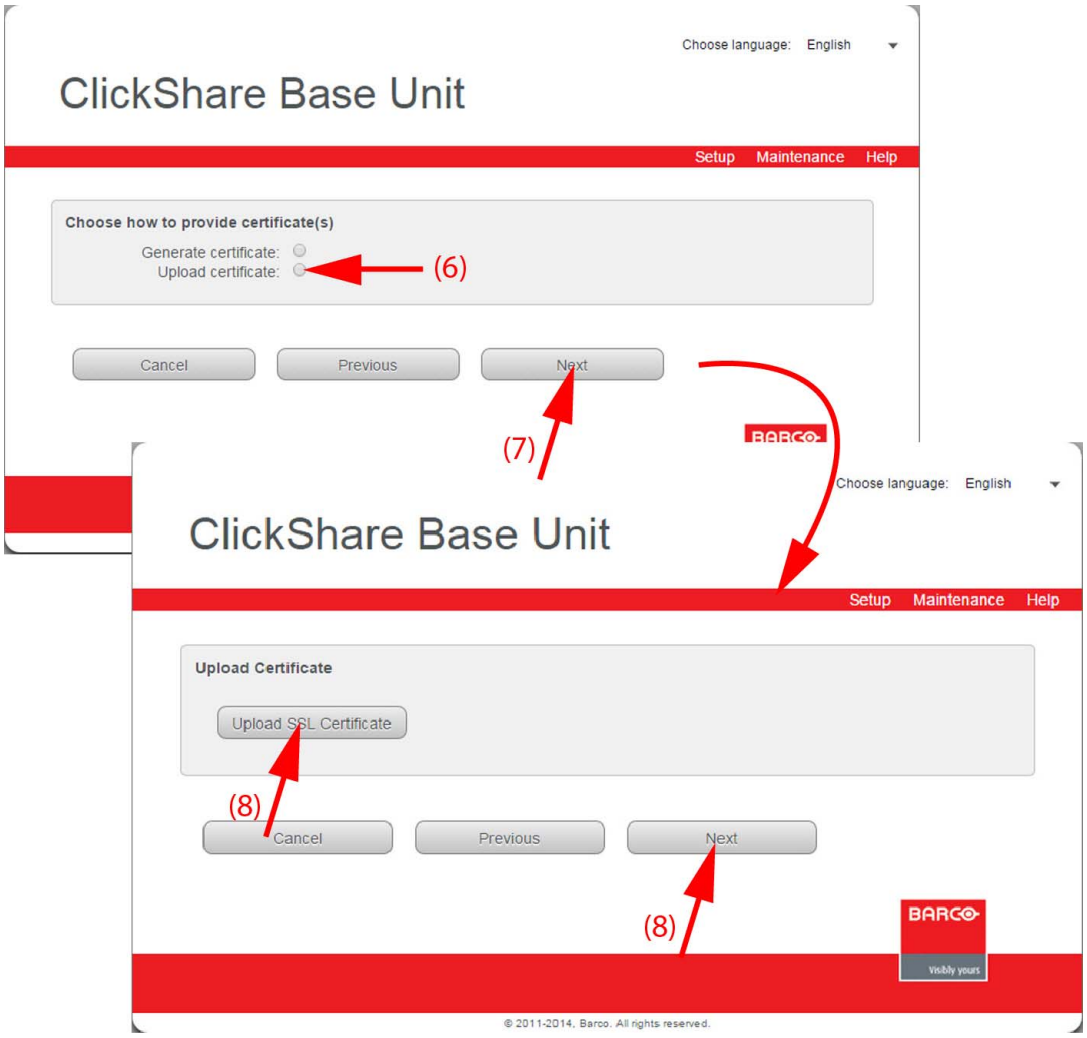


Image 6-32
HTTPS, upload SSL certificate

Click **Upload SSL Certificate** (8) and select the certificate in your browser. Click **open** and then **Next**. The communication is switched to HTTPS.

6.18 Security: Web User Interface

About access

The web interface is always accessible via the Ethernet port. Access via the wireless interface can be enabled or disabled.

How to enable-disable

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Security** (2).
3. To enable access via wireless interface, check the check box next to *Enable access via wireless interface* (3).

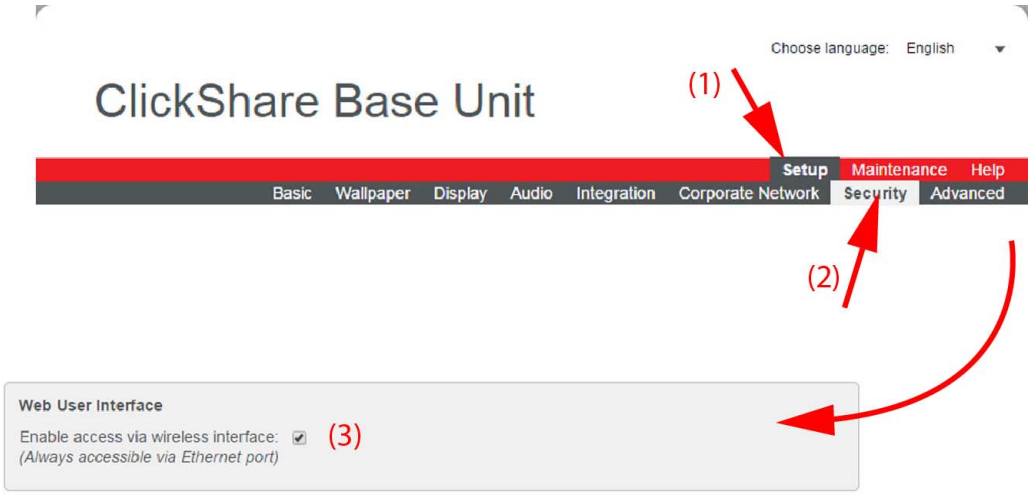


Image 6-33
Access web interface

6.19 Security: access SSH

SSH is only for Barco service purposes.

About SSH access

SSH (Secured Shell) is a network protocol for secure data communication, remote command-line login, remote command execution between networked devices that connects via a secured channel over an insecure network.

A Secured Shell access can be enabled or disabled for the wireless interface and/or for the Ethernet port.

How to enable-disable

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Security** (2).
3. To enable access via wireless interface, check the check box next to *Enable SSH via wireless interface* (3).
   To enable access via Ethernet port, check the check box next to *Enable SSH via Ethernet port* (3).

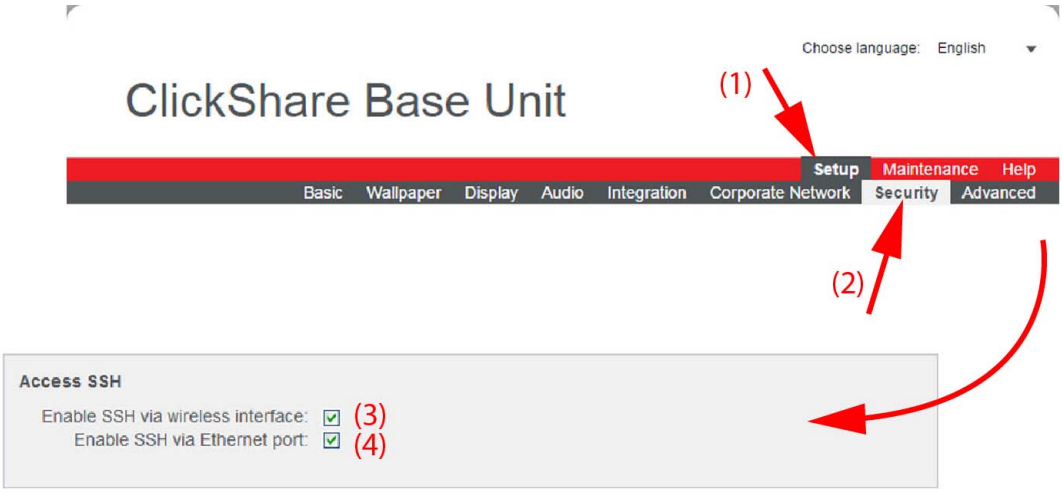


Image 6-34
Access SSH

6.20 Security: Block sharing for Apps

What can be done?

Content sharing with mobile devices can be blocked.

How to block

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Security** (2).

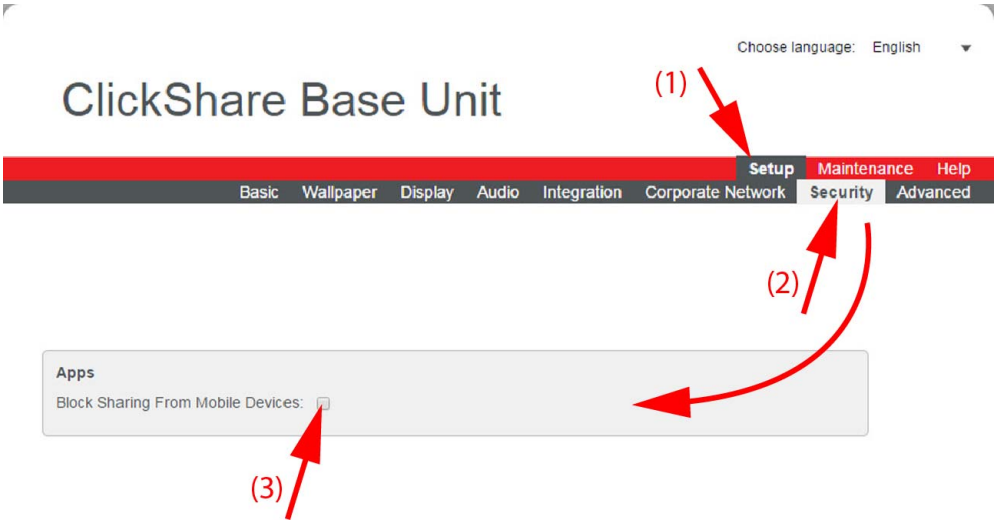


Image 6-35
Block content sharing

3. To block content sharing, check the check box next to *Block Sharing From Mobile Devices* (3).
4. To allow sharing content, uncheck the check box next to *Block Sharing From Mobile Devices* (3).

6.21 Advanced settings: Hostname

Hostname

Hostnames are human-readable nicknames that correspond to the address of a device connected to a network.

How to change

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Advanced** (2).

Image 6-36
Hostname

3. Click in the input field next to *Hostname* (3)

4. Select the current name and enter a new name.
   Note: *The default hostname is "ClickShare-<serial number>".*

6.22 Advanced settings: LAN network settings

About LAN network settings

A network connection can be configured through DHCP or by manually entering a fixed IP address.

DHCP

Dynamic host configuration protocol. DHCP is a communications protocol that lets network administrators manage centrally and automate the assignment of IP addresses in an organization's network. Using the Internet Protocol, each machine that can connect to the Internet needs a unique IP address. When an organization sets up its computer users with a connection to the Internet, an IP address must be assigned to each machine. Without DHCP, the IP address must be entered manually at each computer and, if computers move to another location in another part of the network, a new IP address must be entered. DHCP lets a network administrator supervise and distribute IP addresses from a central point and automatically sends a new IP address when a computer is plugged into a different place in the network.

DHCP setup of the LAN network

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Advanced** (2).

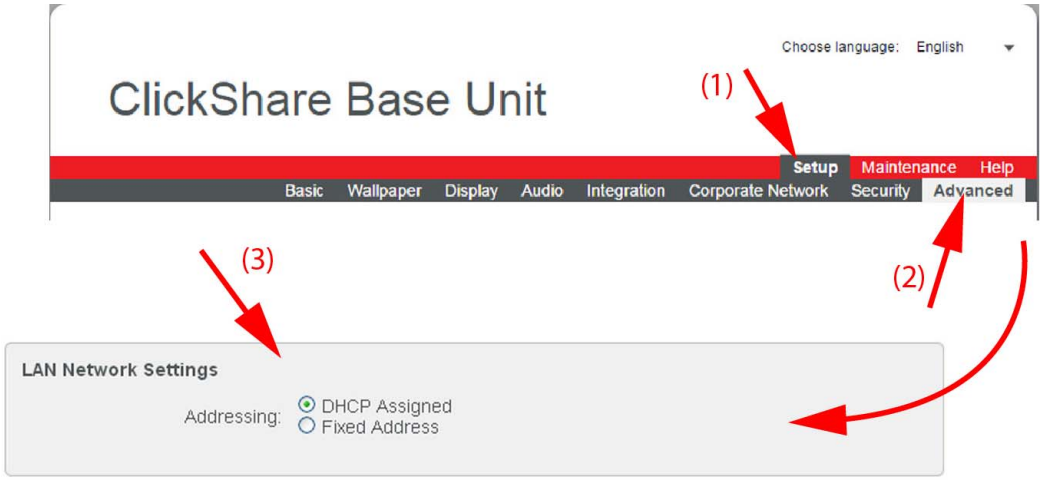


Image 6-37
DHCP setup

   The **Advanced** tab is displayed.

3. Check the radio button next to *DHCP Assigned* (3).
4. Click **Apply** to confirm the changes.

Fixed IP address setup

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Advanced** (2).

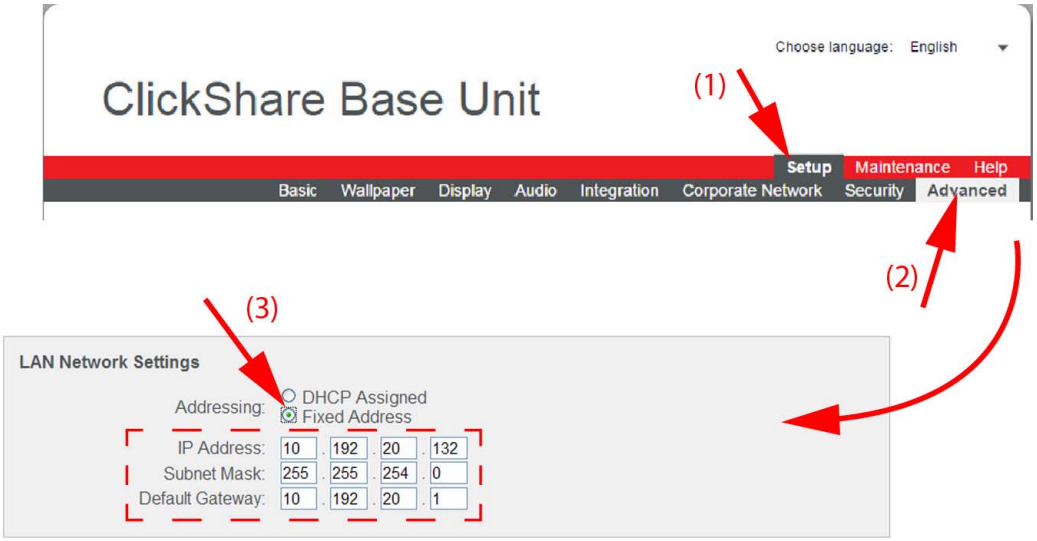


Image 6-38
Fixed IP address

The **Advanced** tab is displayed.

3. Check the radio button next to *Fixed address* (3).

   The IP address, subnet and gateway input opens.

4. Click in the input field of the *IP address* and fill out the 4 fields.
   Note: *An address contains 4 octets with a maximum value of 255.*

   This must NOT be 0.0.0.0 for static IP-Address assignment

5. Click in the *Subnet mask* input fields and fill out the 4 fields as appropriate for the local subnet.

6. Click in the *Default Gateway* input fields and fill out the 4 fields. Set the Default-Gateway to the IP-Address of the router (MUST be on the local subnet!).
   Note: *This must NOT be 0.0.0.0.*

   If there is no router on the local subnet then just set this field to any IP-Address on the subnet.

7. Click **Apply** to confirm the changes.

Do not use IP address 192.168.2.x for a Subnet mask 255.255.255.0 and IP address 192.168.x.x for a Subnet mask 255.255.0.0

6.23 Advanced settings: WiFi settings

WARNING: It is not allowed to operate the Base Unit outside its intended geographical region.

About WiFi

A connection with the Base Unit can be made via a wireless connection. A fixed wireless IP address is used to establish the connection.

The broadcasted wireless power can be reduced.

How to set up

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Advanced** (2).

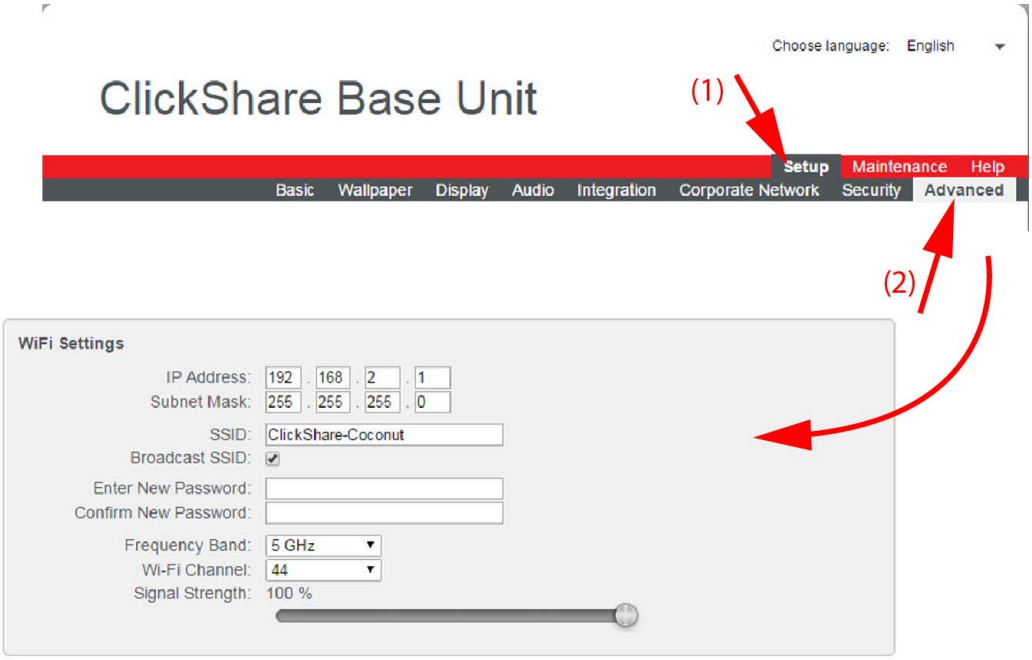


Image 6-39
WiFi settings

3. Enter a public name (SSID) for the wireless network.

   The default SSID is *ClickShare-<serial base number>*.

4. If you want to broadcast this SSID, check the checkbox behind *Broadcast SSID*.

5. Enter a new password and confirm that password.

6. Select the wireless connection frequency band: 2.4 GHz or 5 GHz by clicking on the drop down box and selecting the correct setting
   Note: *Make sure your PC's wireless interface supports the 5 GHz band before selecting it on the Base Unit.*

7. Select the wireless connection channel by clicking on the drop down box and selecting the desired channel.

   The channels available in the list vary according to the regional version of your Base Unit. Re-pairing the Buttons is not required when changing the frequency band or wireless connection channel.

8. Select the Signal Strength. Click on the slider and reduce the broadcasted power (signal strength) until the desired strength is obtained.
   Note: *Too low power and interference by others might lead to connection issues. If so, increase again the signal strength until the issues are solved.*

   By default the strength is set to 100%.

9. Click **Apply** to confirm the changes.
   Note: *Changes made to the WiFi settings will require a reboot of the device after applying.*

6.24 Advanced settings: API configuration Settings

About API settings

The API can be enabled or disabled, that means that the access to unit from a external device can be given or can be blocked.

How to enable-disable

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Advanced** (2).
3. To enable access via API, check the check box next to *Enable API* (3).

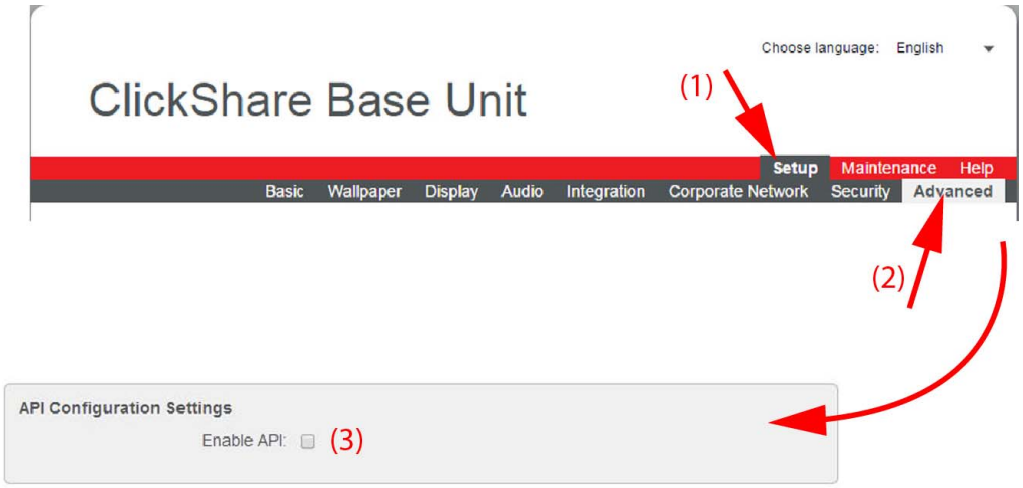


Image 6-40
Enable API

6.25 Advanced settings: NTP setup

About NTP

NTP (network time protocol) allows to synchronize clock on a network. By using NTP, the internal clock of the Base unit can be synchronized with a NTP server on the network. This synchronization is necessary when using HTTPS and corporate network integration.

How to setup

1. Log in to the ClickShare web interface.
2. Click the **Setup** tab (1) and click **Advanced** (2).

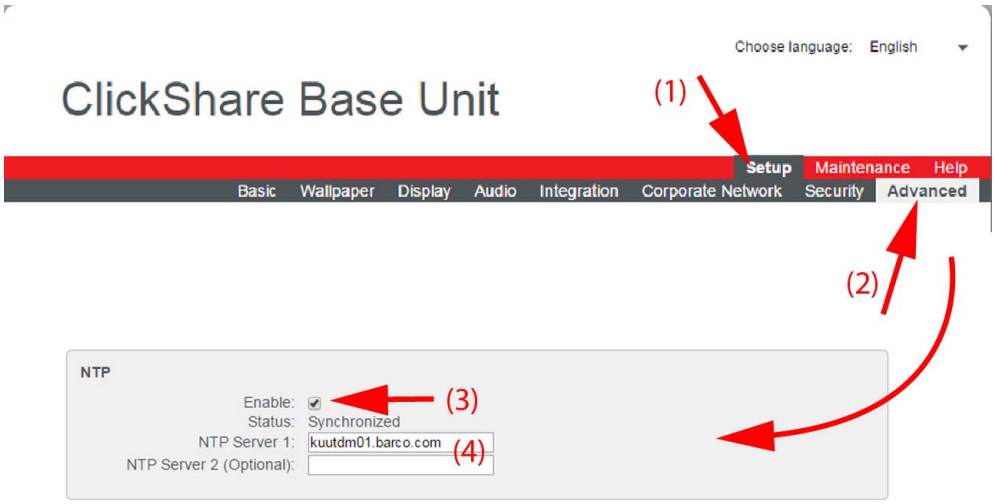


Image 6-41

3. To enable NTP, check the check box next to *Enable* (3).
4. Fill out the host name or IP address of the NTP server on your network.
5. As a backup, you can fill out the address of a second NTP server on the network.
6. Click **Apply** to start the synchronization.

   When synchronized, the status will indicate *Synchronized*.

6.26 Maintenance, status check ClickShare

About status check

The status tab within **Maintenance** gives an overview of

- the LAN interface settings,
- the WiFi settings,
- System identification
- Historical updates
- Subsystem status
- Sensors
- System management

To check the system status

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab and click **Status**.

   The **Status** tab page is displayed.

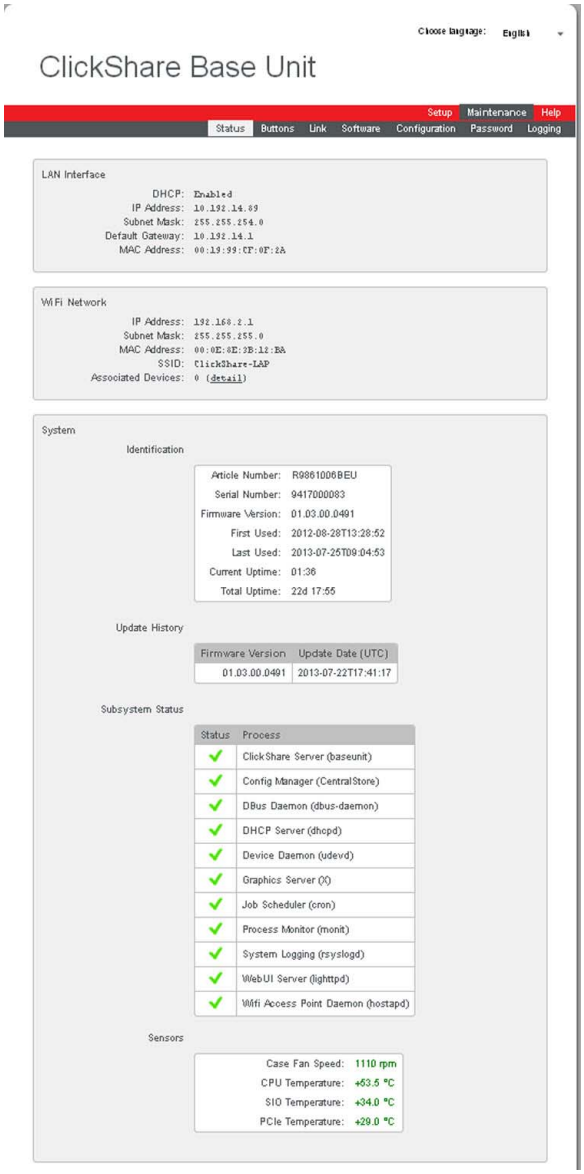


Image 6-42
Status overview

Detailed info for the WiFi network

To see the MAC address of the associated devices, click on the corresponding **detail** button to get an overview.

Image 6-43
Detail associated devices

System Management

Use the **Restart System** button to restart ClickShare.

Use the **Shutdown System** button to shutdown ClickShare.

Image 6-44
System management

6.27 Maintenance, Buttons information

About buttons

The **Buttons** tab gives information on the Buttons that have been paired to the Base Unit.

The following information is given:

- Connected or not
- Serial number
- Last connected
- Status

How to get the information

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Buttons** (2).

   The content of the **Buttons** tab is displayed.

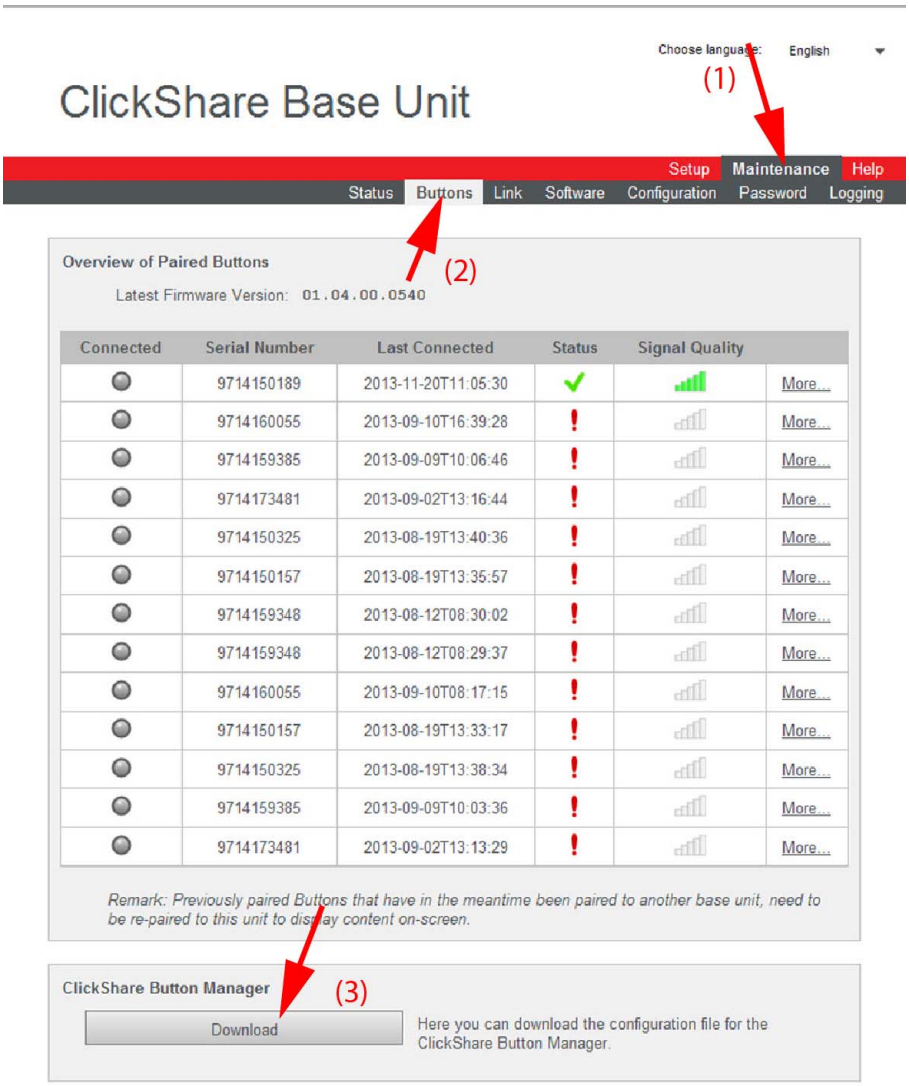

Choose language: English
(1)
ClickShare Base Unit
Setup Maintenance Help
Status Buttons Link Software Configuration Password Logging
(2)
Overview of Paired Buttons
Latest Firmware Version: 01.04.00.0540
Connected Serial Number Last Connected Status Signal Quality
9714150189 2013-11-20T11:05:30 More...
9714160055 2013-09-10T16:39:28 More...
9714159385 2013-09-09T10:06:46 More...
9714173481 2013-09-02T13:16:44 More...
9714150325 2013-08-19T13:40:36 More...
9714150157 2013-08-19T13:35:57 More...
9714159348 2013-08-12T08:30:02 More...
9714159348 2013-08-12T08:29:37 More...
9714160055 2013-09-10T08:17:15 More...
9714150157 2013-08-19T13:33:17 More...
9714150325 2013-08-19T13:38:34 More...
9714159385 2013-09-09T10:03:36 More...
9714173481 2013-09-02T13:13:29 More...
Remark: Previously paired Buttons that have in the meantime been paired to another base unit, need to be re-paired to this unit to display content on-screen.
ClickShare Button Manager
(3)
Download
Here you can download the configuration file for the ClickShare Button Manager.

Image 6-45
Paired buttons, overview

The list gives an overview of the Buttons that have in the past been paired to this Base Unit. If a Button has in the meantime been paired to another Base Unit, it will still appear in this list. To remove it from the list, at the right of the tab page, click **More** and select **Remove from list**.

In the overview of paired Buttons, for each Button that has been paired to this Base Unit, you will find:
The following items can be seen in the list:

- Connected: indicates whether the button is connected or not at the moment.
- Serial number: the unique serial number of the button.
- Last connected: the date the Button was last connected to the Base Unit
- Status the firm- and software status of the button.

Status indication	Icon	Explanation
OK	✓	Button firmware and software are up to date. The Button has been paired to the Base Unit.
ERROR	!	The Button needs to be paired to the Base Unit again before using it. The Button firmware version is incompatible with the Base Unit firmware version.

3. To get more information on the Button firmware, the number of connections and the MAC address, click **More...**.

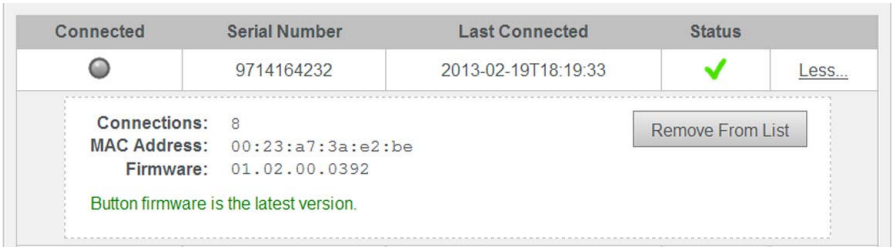


Image 6-46

The Button can be removed from the list by clicking on **Remove From List**.

ClickShare button manager

By clicking on **Download** (3), an XML file is downloaded on the PC. This file contains all information about the base unit to pair buttons on your PC instead of on the base unit itself. To pair buttons on a PC you need to install the ClickShare Button Manager program.

6.28 Maintenance, update Buttons over WiFi

About update Buttons over WiFi

When the Base Unit software is version 01.06 or higher, the Button software will update automatically over WiFi and does not need manual pairing again. The Button software update runs in the background and will not impact users while using the system. If desired, this feature can be disabled in the Web Interface. When downgrading or updating to an older version of the Base Unit software the Buttons need to paired manually to update their software.

How to enable/disable

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Buttons** (2).

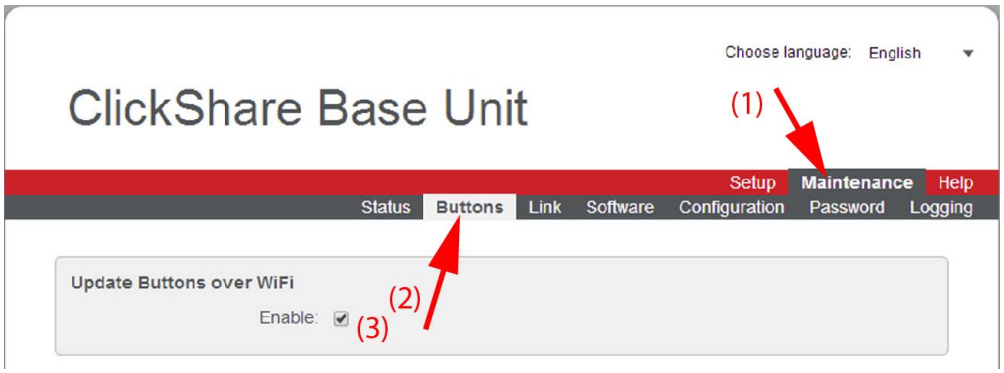


Image 6-47
Update Buttons over WiFi

3. To enable update over WiFi, check the check box next to *Enable* (3) in the *Update Buttons over WiFi* pane.

6.29 Configured Links

About Configured Links

The ClickShare Link connected to the Base Unit is indicated on the Links tab. From this location the Link can be calibrated or it can be removed from the list.

How to display the Links

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Links** (2).

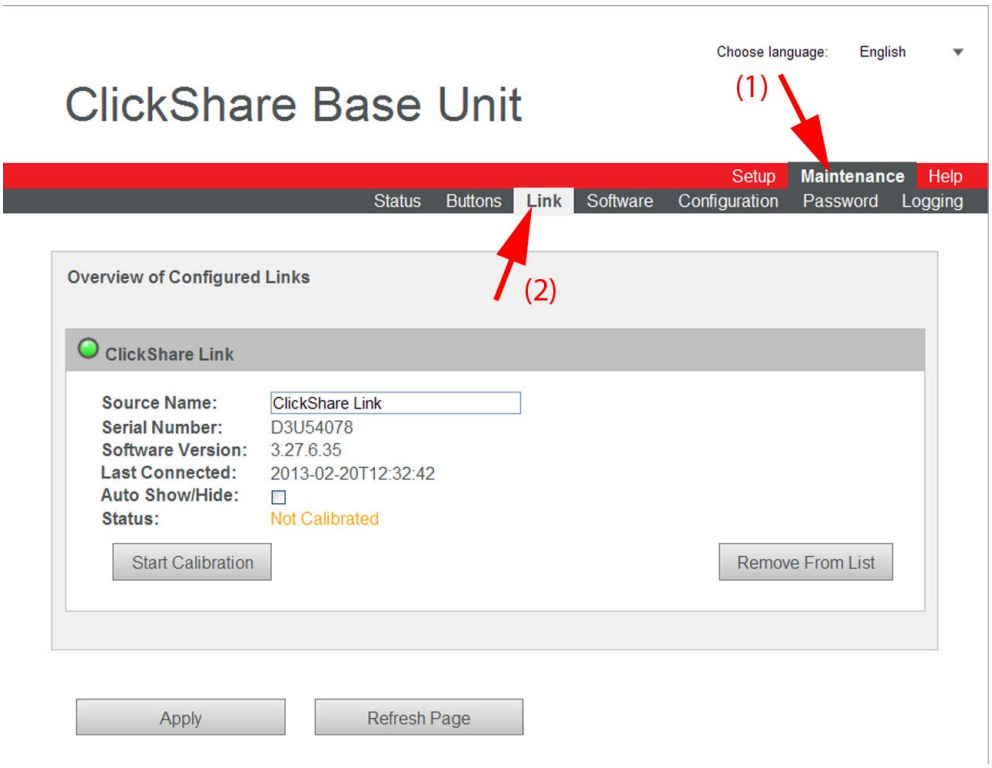


Image 6-48
Link, overview

The content of the **Links** tab is displayed.

An overview of the configured links is given with the following extra info of the Link:

- The green LED indicates that the Link is connected.
- Source name: can be changed to any name, just by clicking inside the input field and entering a new name.
- Serial number
- Software version
- Last connected time
- Auto show/hide
- Status, calibrated or not calibrated

3. To remove the connected Link from the configuration, click **Remove From List**.

About Auto show/hide

Enable (check) this option when you want to hide the Apple TV menu automatically. This requires calibration of the Link. If this option is disabled (unchecked), the Apple TV menu will appear as one of the sources in the ClickShare composition.

6.30 Calibrating a ClickShare Link

About calibration

In the context of Apple TV combined with the Link frame grabber, calibration is the procedure of detecting and determining a reference image. This is used by the Auto Show/Hide function : When the output image of the ClickShare Link matches the reference image the output of the ClickShare Link is hidden.

The ClickShare Link will typically be calibrated on the Apple TV home screen.

The calibration will analyze the image during a 20 second time span. Only parts of the image that do not change during this period will be used. This allows the algorithm to cope with the different appearances of the home screen (e.g. Computers or Settings selected) and the transients between them.

If for some reason calibration fails the previous reference image will be restored.

How to calibrate

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Links** (2).

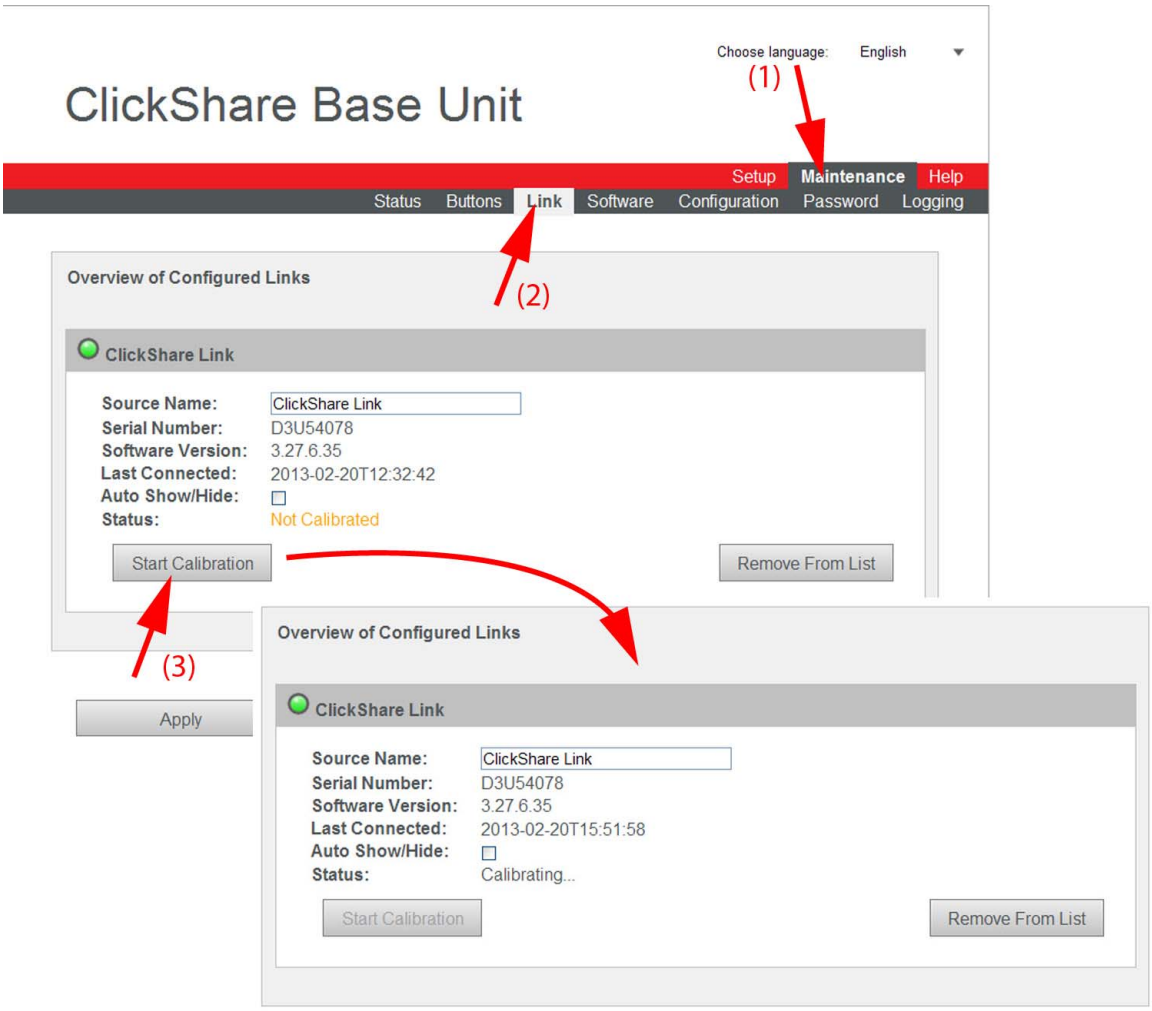


Image 6-49
Start calibration

3. Click **Start Calibration**.

   The calibration process starts.

   A calibration message with progress bar is displayed on the meeting room display.

   Use the Apple TV remote to cycle through the top row of icons (the row with Computers and Settings) on the home screen.

   When the calibration is successful, the Status will change to *Calibrated*.

   Note : If the visible application icons (just below the top row) are changed it will be necessary to repeat the calibration.

6.31 Base Unit software update

About Software update

The software of the Base Unit can be updated via the web interface. The latest version of the software is available on Barco's website, www.barco.com/clickshare. Click on Download Software.

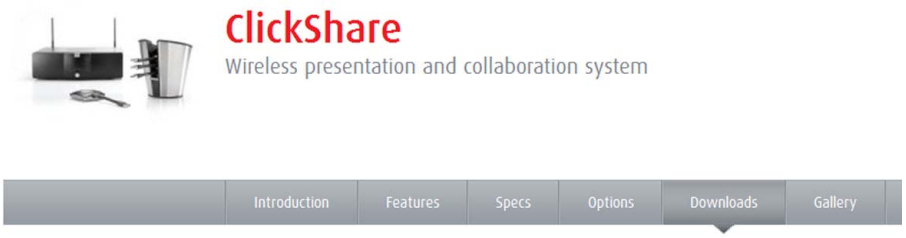


Image 6-50
Download page

How to update

1. Download the latest version of the software from Barco's website.
2. Log in to the ClickShare web interface.
3. Click the **Maintenance** tab (1) and then click **Software** (2).

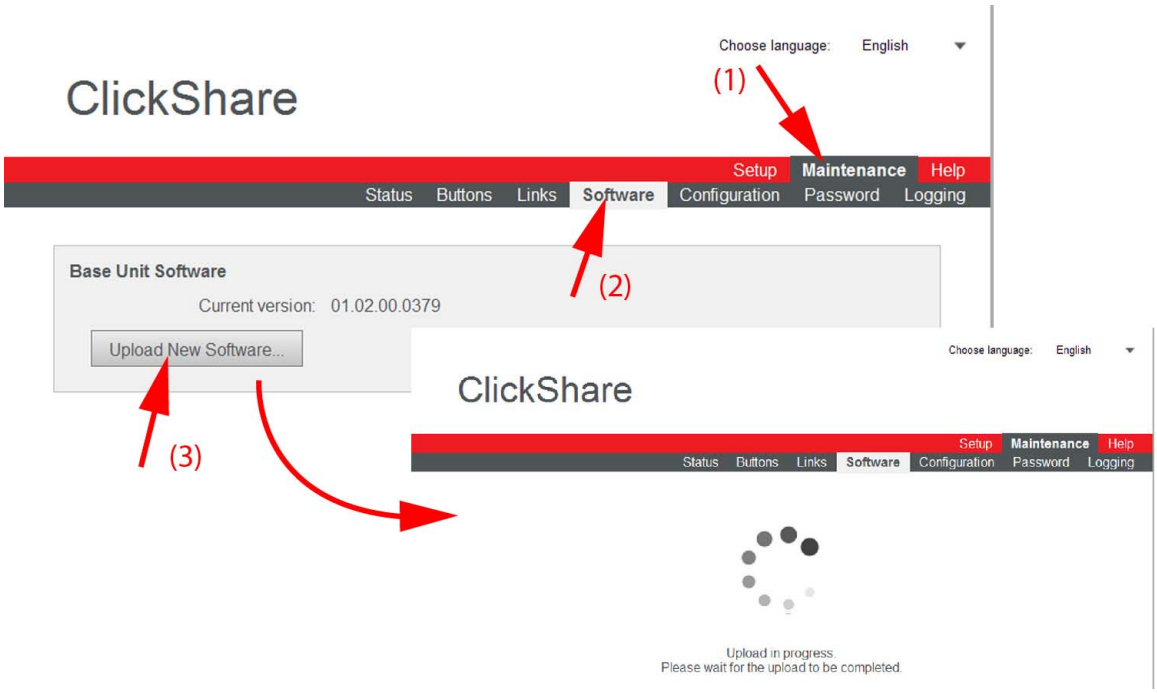


Image 6-51
Update software

The content of the **Software** tab is displayed.

The current version of the Base Unit software is shown in the Base Unit Software pane.

4. To upload a new version of the Base Unit software, click **Upload New Software... .** (3).

   A browser window opens.

5. Browse to the file with the new software and click **Open** to start the upload.
   Note: *This should be an ipk file. You might have to unzip the file downloaded from Barco's website.*

   Note: *Updating the software to the Base Unit and installing it can take several minutes. Progress can be followed on the meeting room display.*

   The Base Unit software is updated.

When updating the Base Unit software to version 01.06 or higher, the Button software will update automatically over WiFi and does not need manual pairing again. The Button software update runs in the background and will not impact users while using the system. If desired, this feature can be disabled in the Web Interface. When downgrading or updating to an older version of the Base Unit software the Buttons need to paired manually to update their software.

Once upgraded to software version 01.07 or higher it is not possible to downgrade again below version 1.07.

Important notice for updating to software version 01.05 and above

Please note that firmware versions 01.04 and above are digitally signed to raise security level. To change from an unsigned firmware version to signed firmware, an intermediate step is required. This step is included in firmware version 01.04. As a result, updating firmware version 01.03 to firmware version 01.05 requires first an update from version 01.03 to 01.04, followed by an update from 01.04 to 01.05. When updating firmware version 01.04 to higher versions, no special action is required. Downgrading a firmware version to an older version does not require an intermediate step.

Flows to follow when up or downgrading between signed and unsigned versions:

Software upgrade:

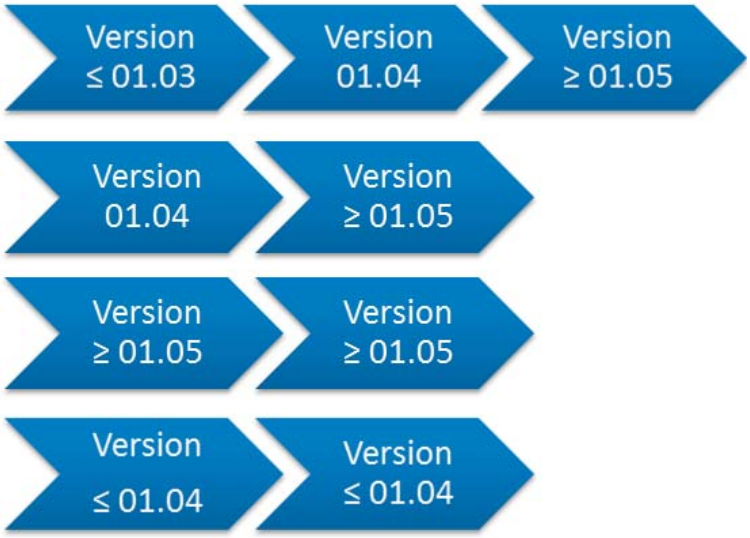


Image 6-52

Software downgrade:

Image 6-53

6.32 Downloads from Base Unit (launcher service)

About downloads

The launcher service and the ClickShare client software for PC or MAC are stored on the Base Unit and can be downloaded for installation on the user's PC.

For more information, see "Pre-install of the Launcher service", page 36.

How to download

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Software** (2).

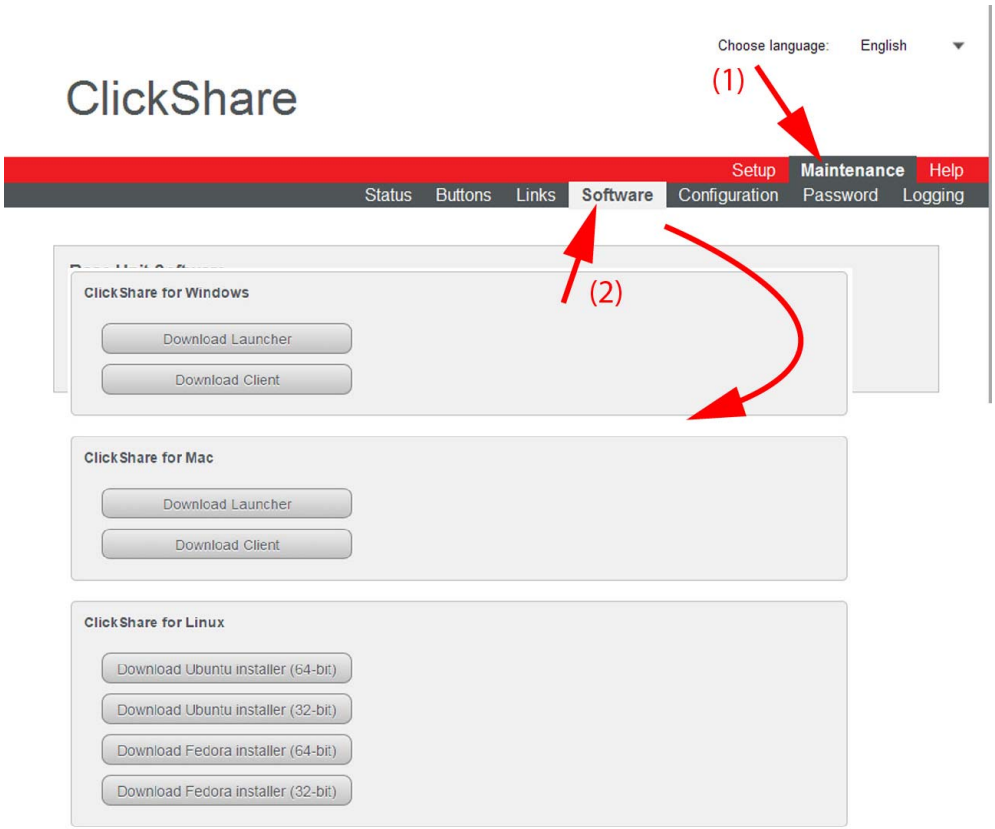


Image 6-54
Downloads software

The content of the **Software** tab is displayed.

3. To download the Launcher Service, for Windows, click on **Download Windows Launcher** or for Mac, click on **Download Mac Launcher**.
4. To download the ClickShare Client, for Windows, click on **Download Windows Client** or for Mac, click on **Download Mac Client**.
5. To download the Linux installer for Ubuntu 32 bit or 64 bit or for Fedora 32 bit or 64 bit.

6.33 Manage System Configuration

About Manage system configuration

A full backup can be downloaded but cannot be used to duplicate configuration settings to other Base units. Therefore, it is possible to download a Portable version. This portable version can be uploaded via the upload configuration button on other Base units. Via the same button, the full backup can be uploaded on the original Base Unit.

A portable backup contains:

- Wallpapers
- Wallpapers settings
- Logging settings
- Link name
- Link setting auto show/hide
- All display settings
- OSD language
- Location
- Welcome message
- Audio functionality enabled/disabled
- WiFi channel
- WiFi frequency

To manage the system configuration

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Configuration** (2)..

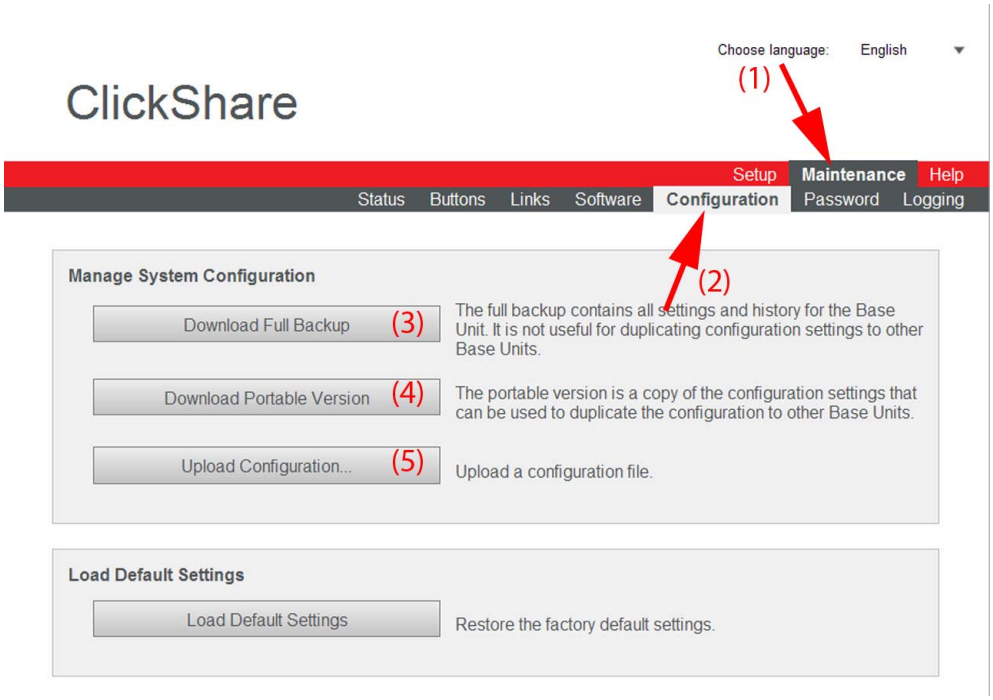


Image 6-55
Manage system configuration

The content of the **Configuration** tab is displayed.

3. To download a full backup, click on **Download Full Backup** (3).

   An xml file, containing all information and history will be downloaded. This file can be reused on the same Base Unit only.

4. To download a portable version, click on **Download Portable Version** (4).

   An xml file, containing portable information to duplicate settings on another Base Unit.

5. To upload a configuration, click on **Upload Configuration** (5).

   A browser window opens. Navigate to the upload file (xml file) and click **Open** to upload.

When uploading a config file, the history of software updates and paired dongles is lost. Paired dongles will however remain functional if the Base Unit has not changed from SSID or wireless password.

6.34 Load Default Settings

About default settings

The ClickShare Base Unit can return to the factory default settings.

The following settings are the defaults:

- Meeting room identification info is cleared.
- Language is set to English.
- Custom wallpapers are removed and the default wallpaper is restored.
- Display resolution is set to auto and standby timer is reset to infinity
- Display Identifiers are turned off.
- Hostname and SSID is set to *clickshare-serialnumber*.
- The SSID is broadcasted
- WiFi password is reset to *clickshare*.
- The default WiFi channel is set back to frequency 2.4 GHz, channel 6.
- The update history is cleared.
- The table with the associated Buttons is cleared.
- The admin password is reset to *admin*.
- Debug logging and remote logging are disabled.

How to restore factory defaults

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Configuration** (2).

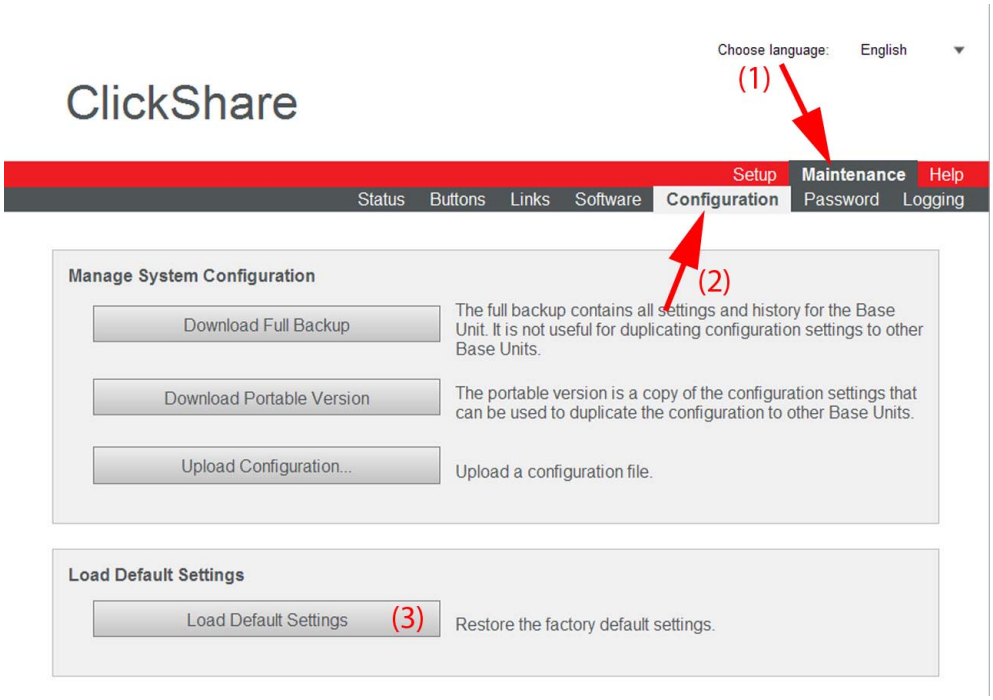


Image 6-56
Factory defaults

3. Click on **Load Default Settings** to return to the factory defaults (3).

Alternative way to load default settings

1. With the Base unit switched off, connect a USB keyboard to a USB port at the back side the Base unit.
2. Power up the Base Unit.
3. Press multiple times on the Down arrow keys to select *Load Default Settings* in the boot menu (Grub) and press **ENTER**.

Image 6-57
Alternative way

6.35 Administrator password

About the administrator password

The administrator password to log in in the web interface can be changed at any time.

To change the administrator password

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Password** (2)..

The content of the **Password** tab is displayed.

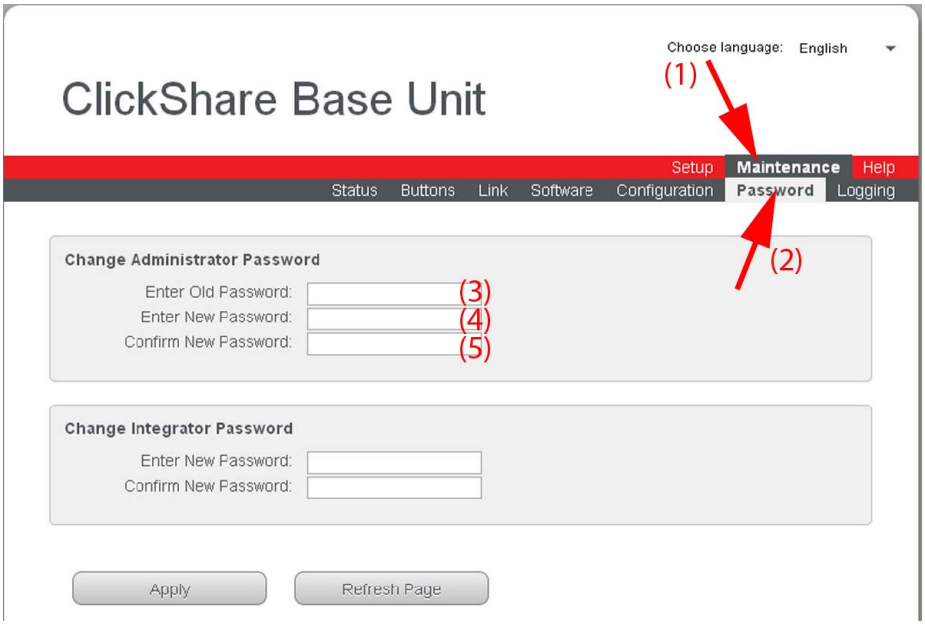


Image 6-58
Password

3. Enter the old password (3).
4. Enter the new password (4).
5. To confirm, enter the new password a second time (5).
6. Click **Apply**.

   The administrator password is changed.

6.36 Integrator password

About the integrator password

When an integrator wants to access the ClickShare Base Unit via API commands a typical password can be required. This password can be changed at any time by the administrator of the ClickShare Base Unit.

To change the integrator password

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Password** (2)..

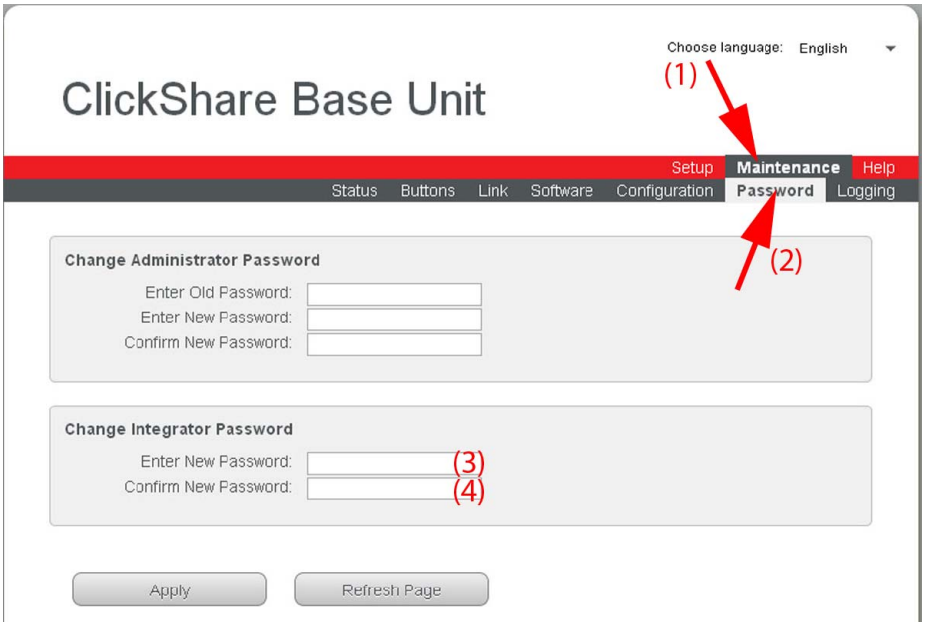


Image 6-59
Integrator password

3. Enter the new password (3).
4. To confirm, enter the new password a second time (4).
5. Click **Apply**.

   The integrator password is changed.

6.37 Log settings

About logging

Both Button and Base Unit log data is saved in log files on the Base Unit. These log files can contain debugging information. They can be downloaded on a local computer and cleared on the Base Unit

How to use

1. Log in to the ClickShare web interface.
2. Click the **Maintenance** tab (1) and then click **Logging** (2)..

   The content of the **Logging** tab is displayed.

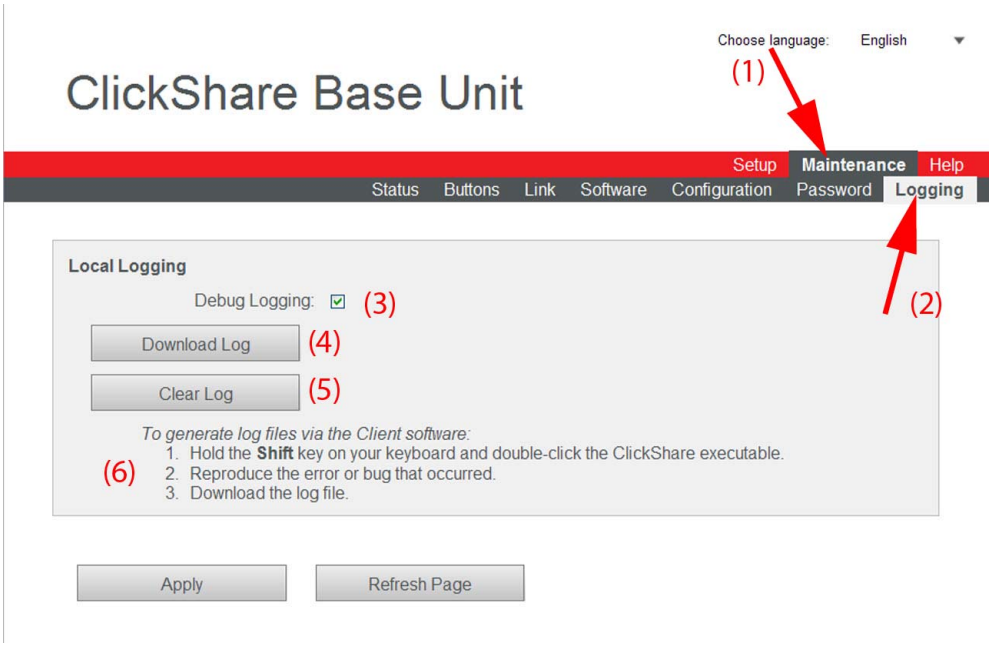


Image 6-60
Logging

3. To create a debug log, check the check box next to *Debug Logging* (3).
4. Reproduce the issue you want to report.
5. To download the current log file, click on **Download Log** (4).
6. To clear the current log file, click **Clear Log** (5).
7. • To enable logging by the ClickShare client (6):
   - If the launcher service is running hold down the shift key while connecting the dongle to the PC, until logging is started.
   - If the launcher service is not running : hold down the shift key while double clicking the ClickShare application.

   The following message appears on the sys tray:

Ready to share on ClickShare
Logging is enabled (level: debug).
Log file is saved to C:/Documents and Settings/ivh/Local Settings/Application Data/Barco/ClickShare Client/clickshare.log.

Image 6-61
Client logging

8. Click **Apply**.

6.38 ClickShare Help, Barco contact data

About ClickShare Help

All kind of manuals, firmware and software updates can be found on Barco's website. For technical assistance contact your reseller.

How to consult

1. Log in to the ClickShare web interface.
2. Click the **Help** tab (1) and then click **Contact** (2).

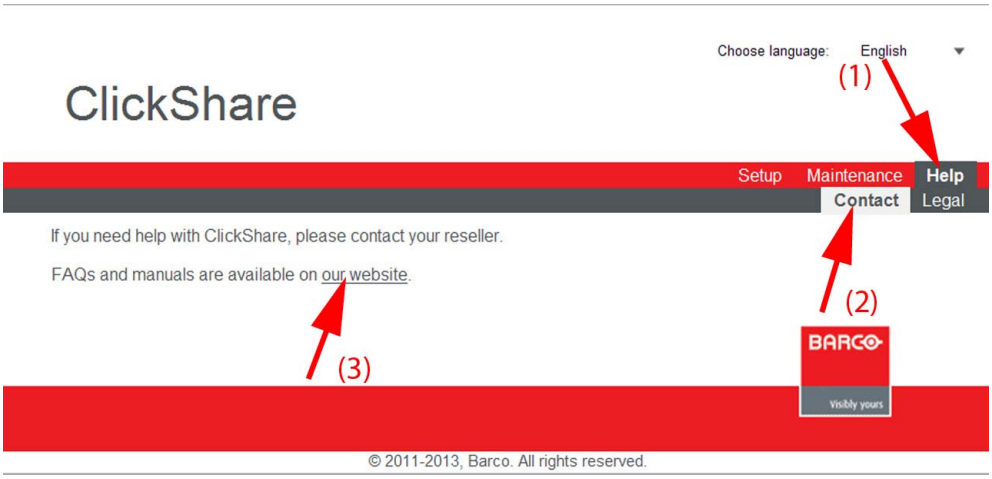


Image 6-62

The content of the **Contact** tab is displayed.

The **Contact** page contains a link to the ClickShare home page on Barco's website (3).

3. Click on the link **Visit the ClickShare product page**.
4. Click **Downloads**

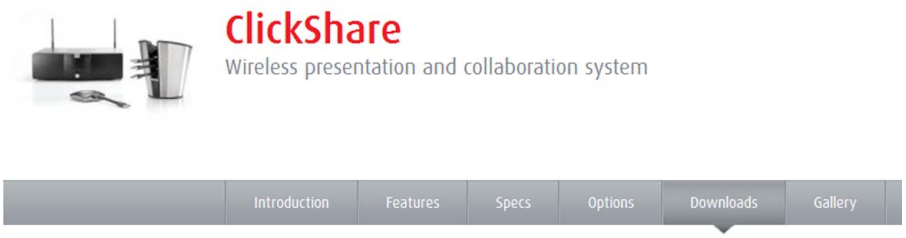


Image 6-63

All kind of manuals, brochures and software updates can be found on that page.

6.39 Barco ClickShare EULA

About the Barco ClickShare EULA

The Barco ClickShare End-User License Agreement (EULA) can be consulted on the **Legal** tab page.

How to consult

1. Log in to the ClickShare web interface.
2. Click the **Help** tab (1)and then click **Legal** (2).

   The End-User license agreement is displayed.

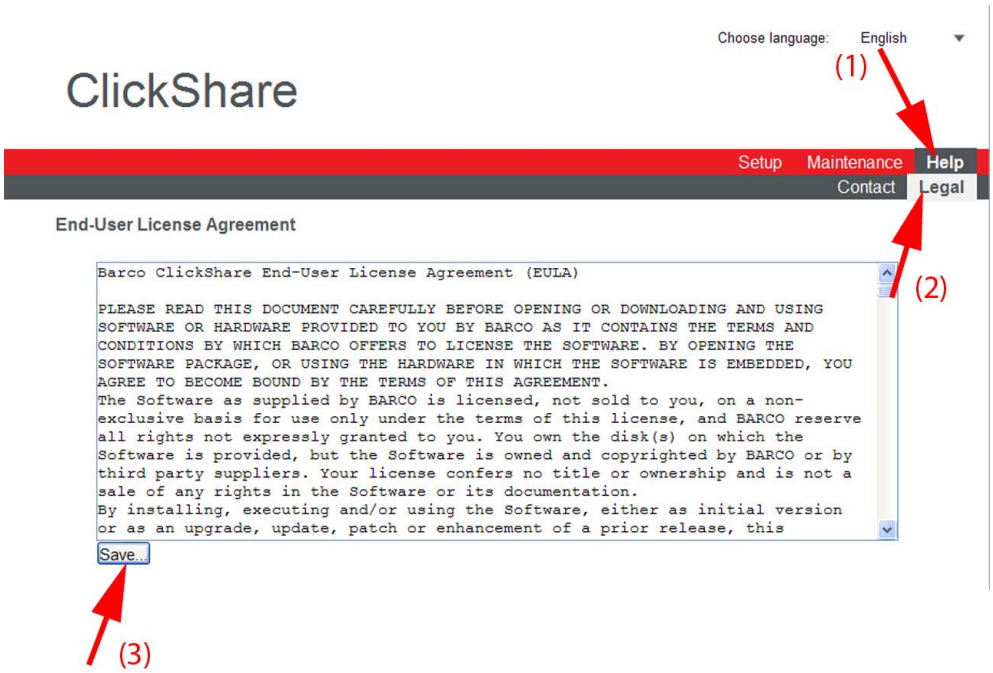

Choose language: English
(1)
ClickShare
Setup
Maintenance
Help
Contact
Legal
End-User License Agreement
Barco ClickShare End-User License Agreement (EULA)
PLEASE READ THIS DOCUMENT CAREFULLY BEFORE OPENING OR DOWNLOADING AND USING SOFTWARE OR HARDWARE PROVIDED TO YOU BY BARCO AS IT CONTAINS THE TERMS AND CONDITIONS BY WHICH BARCO OFFERS TO LICENSE THE SOFTWARE. BY OPENING THE SOFTWARE PACKAGE, OR USING THE HARDWARE IN WHICH THE SOFTWARE IS EMBEDDED, YOU AGREE TO BECOME BOUND BY THE TERMS OF THIS AGREEMENT.
The Software as supplied by BARCO is licensed, not sold to you, on a non-exclusive basis for use only under the terms of this license, and BARCO reserve all rights not expressly granted to you. You own the disk(s) on which the Software is provided, but the Software is owned and copyrighted by BARCO or by third party suppliers. Your license confers no title or ownership and is not a sale of any rights in the Software or its documentation.
By installing, executing and/or using the Software, either as initial version or as an upgrade, update, patch or enhancement of a prior release, this
(2)
Save...
(3)

Image 6-64
EULA

3. If desired, click **Save ...** (3) to save a copy of the agreement on your laptop.
4. In the **File Download** window, click **Save**.

   The **Save as** window opens.
5. Browse to the location where to store the EULA file and click **Save**.

   A copy of the Barco ClickShare EULA has been saved to your laptop.

7. SOFTWARE UPDATES

7.1 Software update

About Software updates

There are two ways to update the Base Unit software:

- via the Web Interface, for more information, see "Base Unit software update", page 82
- by copying the software on a USB stick

To update the Base Unit software by copying the software on a USB stick

1. Download the latest version of the software from Barco's website, , www.barco.com/clickshare. Click on **Visit the ClickShare product page** and go to tab **Downloads**
2. Unzip the file and copy the ipk file to a USB stick.
3. Rename the file to `clickshare_firmware.ipk`.

   Renaming is necessary as the software will look for that specific filename on the device.
4. Insert the USB stick into the USB port at the front of the Base Unit.
5. Follow the instructions on the meeting room screen.
6. When the on-screen message indicates that the process is finished, remove the USB stick.

   The Base Unit shuts down.

When updating the Base Unit software to version 01.06 or higher, the Button software will update automatically over WiFi and does not need manual pairing again. The Button software update runs in the background and will not impact users while using the system. If desired, this feature can be disabled in the Web Interface. When downgrading or updating to an older version of the Base Unit software the Buttons need to paired manually to update their software.

Once upgraded to software version 01.07 or higher it is not possible to downgrade again below version 1.07.

Important notice for updating to software version 01.05 and above

Please note that firmware versions 01.04 and above are digitally signed to raise security level. To change from an unsigned firmware version to signed firmware, an intermediate step is required. This step is included in firmware version 01.04. As a result, updating firmware version 01.03 to firmware version 01.05 requires first an update from version 01.03 to 01.04, followed by an update from 01.04 to 01.05. When updating firmware version 01.04 to higher versions, no special action is required. Downgrading a firmware version to an older version does not require an intermediate step.

Flows to follow when up or downgrading between signed and unsigned versions:

Software upgrade:

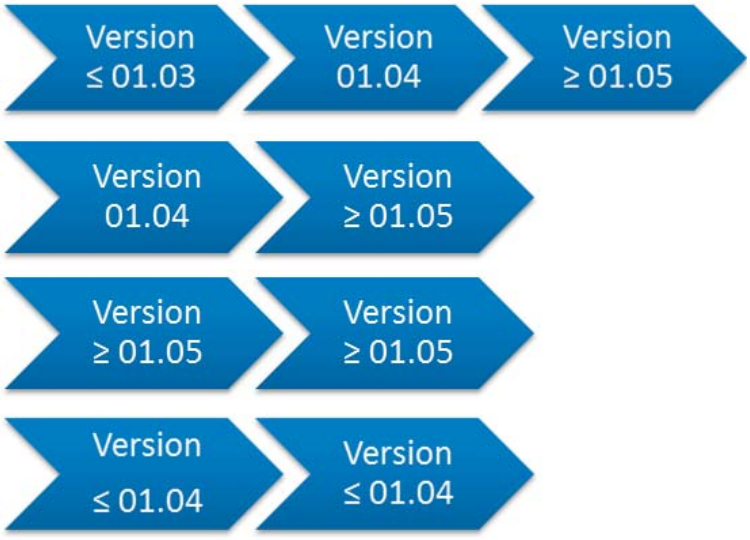


Image 7-1

Software downgrade:

Image 7-2

8. TROUBLESHOOTING

8.1 Troubleshooting list

Problem solving

Locate the problem you are experiencing in the table below and apply the solution.

Problem	Cause	Solution
Quality of the image on the meeting room display is not satisfactory	The quality or length of the cable between the Base Unit and the display or the connection between these two.	• Replace the cable. • Use another cable.
	Bad resolution of the display The system can handle the average laptop resolution of 3 Megapixel. However, up or down scaling on the meeting room display can cause visible artefacts.	Change the resolution on the web interface and match it to the native resolution of the meeting room display.
Users have a bad wireless connection. The connection from the Button to the Base Unit keeps falling away.	Wireless congestion	• Use a WiFi scanner to find a free wireless channel and select it via the web interface. You can use commercial as well as free online tools such as inSSIDer or Xirrus for this. Refer to “Changing advanced ClickShare settings”.
	Low signal strength	• Put the Base Unit closer to the meeting room table. • Change the orientation of the antennas at the back of the Base Unit. • Remove or limit as much as possible all obstructions between the Buttons and the Base Unit.
Web interface is not accessible	Browser	• Use another browser (version). • Check the browser settings.
	No connection	• There are three methods to access the web interface. Refer to the corresponding chapter of the documentation. • Check the proxy settings
Users do not get a ClickShare drive when inserting the Button in their laptop.	• No automatic refresh of drives • Windows tries to assign the ClickShare drive to an already reserved drive letter	• Refresh your view on the laptop. • Use Microsoft Windows Disk Management to assign it to a free drive letter.
	Bad connection at USB port on the laptop	• Reconnect to the USB port. • Try another USB port. • Reboot the laptop.
	• Some types of USB devices might be blocked as a company policy. • USB port settings on the laptop might limit the usage of high power USB devices when on battery power.	If possible, change the USB port policy on the laptop.

Problem	Cause	Solution
Low video performance	Laptop performance	• Lower the screen resolution of the laptop. • Disable the hardware acceleration for video. • Use only a part of the display to show the video. • Set the capture mode to Fast (right click ClickShare icon in system tray)
	Wireless connectivity	See “Users have bad connectivity”
Video is not shown on screen	Player uses overlays	Disable the usage of overlays in the preferences of the video player.
	The content uses HDCP	ClickShare does not support showing HDCP content (it will be displayed as black)
Some programs of Windows are not shown on the display	Use of overlays, 3D or hardware acceleration in the GPU	• Disable overlays or hardware acceleration in the GPU. • Disable AeroGlass in Windows 7 • Upgrade the Base Unit to the latest software version.
When using Windows 7 the following message about the Windows Aero color scheme appears: "Windows has detected your computer’s performance is slow. This could be because there are not enough resources to run the Windows Aero color scheme. To improve...".	ClickShare uses resources from the GPU. In combination with other programs which do so, Windows 7 sometimes shows this message suggesting to disable Aero to improve the performance of your laptop.	It is safe to ignore this message and choose ’Keep the current color scheme’.
Your screen is not shown on the display when pressing the Button	You are the fifth person that wants to share content. Only four screens can appear simultaneously	Click and hold the button for 2 seconds to use the Show me full screen function.
	The ClickShare software is not running.	Go to the ClickShare drive and run the software.
Your content is removed from the display and the LEDs on the button are blinking white	Connection to the Base Unit is lost.	ClickShare tries to restore the connection automatically. If it fails, the LEDs on the Button start blinking red. Unplug the button from your laptop and try a new button.
Noting is shown on the displays at all.	The displays are switched off.	Switch on the displays.
	The display cables are not correctly connected	Insert the display cables to the displays and the Base Unit.
	The display does not recognize or is not able to display the Base Unit output resolution.	Change the corresponding setting via the web interface.
	The Base Unit is in standby mode	Briefly push the standby button on the Base Unit or insert a button and run the ClickShare software.
	The Base Unit is switched off	Set the rocker switch at the back of the unit to “1”.
Bad WiFi connectivity	Congestion of the wireless channel	Use wireless network scan tools to look for free or the least congested channels.
	Metal cabinets, walls, construction elements, ... can cause reflections deteriorating the wireless signal. Obstructions between Buttons and Base Unit cause lowering of the wireless strength and quality.	Move the Base Unit to another place in the room.
		Avoid placing it inside cabinets, false ceiling, below the table, behind a wall, in another room, ...
		Re-orient he Base Unit antennas
		Check out the ClickShare White paper on WiFi See www.barco.com/clickshare.

Problem	Cause	Solution
Base Unit does not start up correctly.	A USB stick, ClickShare Button or another USB device is connected to one of its USB slots at start-up.	Remove the connected USB device and restart the unit.
Base Unit software does not start up correctly after software update	It seems to be in an endless loop during startup	To recover, connect a keyboard to the Base Unit. When the boot selection menu comes up, press the arrow keys to select a previous version of the software and confirm by pressing Enter. Browse to the Web interface and update the software again to the latest version.
During start-up the Base Unit freezes a few minutes displaying the message “ata_id[…]: HDIO_GET_IDENTIFY failed for …”.	This is a known issue.	• The freeze lasts maximum 2 or 3 minutes. The Base Unit starts up normally. • Upgrade the Base Unit to the latest software version to fix the problem.
Base Unit does not function properly.	The LAN IP address the Base Unit received from the DHCP server is in the 192.168.1.xxx range.	Disconnect the LAN cable.
In Windows XP, I cannot see the ClickShare drive in the window “My Computer”.	This problem might be caused by a known issue of Windows XP	You can find more details and the appropriate solution via link : http://support.microsoft.com/kb/297694
ClickShare does not work on my Mac	ClickShare with software version 01.01.00.0092 is not compatible with MacBook with Retina display	This is a known issue. Upgrade the Base Unit with the latest software version to fix the problem.
	ClickShare with software version 01.01.00.0092 does not work on Mac’s of which the resolution width is not dividable by 4.	This is a known issue. Upgrade the Base Unit with the latest software version to fix the problem.
	Virtualisation software like Parallels	When using a virtualisation software on Mac OS/X like Parallels, there are two possiblities: 1. The user can assign the USB port to te host machine (OS/X). In that case, Parallels content is treated like just another application, in other words, the users main display is screen scraped and shown by ClickShare. 2. The user can assign the USB port to the virtual machine (e.g. Windows). In that case, the Windows desktop will be screen scraped in normal mode. When in Unity mode, there is no Windows desktop. In that case, it is better to use mode (1) as described above.
ClickShare does not recover after my Mac goes into standby	Known issue on OS X Mountain Lion (version 10.8.x). The ClickShare client cannot reconnect to the Button after stanby.	• No fix yet. Unplug and reconnect the ClickShare Button to recover. • Upgrade the Base Unit to the latest software version.
Boot time takes a very long time. Unit seems not to react for several minutes.	There is a known issue that causes the boot process to freeze for 2-3 min.	• Just wait 2 or 3 minutes, the unit will continue booting normally. • Upgrade the Base Unit to the latest software version.
Web Interface shows error in the processes “WiFi Access Point Daemon” and/or “DHCP Server”	Configuration file is corrupted	Browse to the Configuration tab on the Web Interface and press “Load Default Settings”.
		Connect a keyboard to the Base Unit. When the boot selection menu comes up, press the arrow keys to select “Load Default Settings” and confirm by pressing Enter.

Problem	Cause	Solution
	An illegal WiFi channel is selected	Browse to the Advanced tab of the Web Interface and change the Frequency band and/or WiFi channel. After +/- 1 minute, the processes should automatically recover.
ClickShare Base Unit does not start up correctly	Configuration file is corrupted	Browse to the Configuration tab of the Web Interface and press “Load Default Settings”.
		Connect a keyboard to the Base Unit. When the boot selection menu comes up, press the arrow keys to select “Load Default Settings” and confirm by pressing Enter.
	Software is corrupted	Connect a keyboard to the Base Unit. When the boot selection menu comes up, press the arrow keys to select a previous version of the software and confirm by pressing Enter. Browse to the Web Interface and update the software again to the latest version
		Contact the distributor customer support to apply the Emergency Recovery procedure.
No LAN connection with the Base Unit	Wrong IP address	IP address is not within your LAN range.
		DHCP is not enabled.
No WiFi connection with Base Unit	SSID not correct	Enter the correct SSID

A. ENVIRONMENTAL INFORMATION

A.1 Disposal information

Disposal Information

Waste Electrical and Electronic Equipment

This symbol on the product indicates that, under the European Directive 2012/19/EU governing waste from electrical and electronic equipment, this product must not be disposed of with other municipal waste. Please dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

For more information about recycling of this product, please contact your local city office or your municipal waste disposal service.

For details, please visit the Barco website at: http://www.barco.com/en/AboutBarco/weee

Disposal of batteries in the product

This product contains batteries covered by the Directive 2006/66/EC which must be collected and disposed of separately from municipal waste.

If the battery contains more than the specified values of lead (Pb), mercury (Hg) or cadmium (Cd), these chemical symbols will appear below the crossed-out wheeled bin symbol.

By participating in separate collection of batteries, you will help to ensure proper disposal and to prevent potential negative effects on the environment and human health.

A.2 Rohs compliance

Turkey RoHS compliance

Türkiye Cumhuriyeti: AEEE Yönetmeliğine Uygundur.

[Republic of Turkey: In conformity with the WEEE Regulation]

中国大陆 RoHS – Chinese Mainland RoHS

根据中国大陆《电子信息产品污染控制管理办法》(也称为中国大陆RoHS)，以下部分列出了Barco产品中可能包含的有毒和/或有害物质的名称和含量。中国大陆RoHS指令包含在中国信息产业部MCV标准:“电子信息产品中有毒物质的限量要求”中。

According to the “China Administration on Control of Pollution Caused by Electronic Information Products” (Also called RoHS of Chinese Mainland), the table below lists the names and contents of toxic and/or hazardous substances that Barco’s product may contain. The RoHS of Chinese Mainland is included in the MCV standard of the Ministry of Information Industry of China, in the section “Limit Requirements of toxic substances in Electronic Information Products”.

零件项目(名称) Component Name	有毒有害物质或元素 Hazardous Substances or Elements					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr6+)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印制电路配件 Printed Circuit Assemblies	x	0	x	0	0	0
电(线)缆 Cables	x	0	x	0	0	0

底架 Chassis	x	0	x	0	0	0
电源供应器 Power Supply Unit	x	0	x	0	0	0
文件说明书 Paper Manuals	0	0	0	0	0	0

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下.

O: Indicates that this toxic or hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求.

X: Indicates that this toxic or hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363 2006.

在中国大陆销售的相应电子信息产品(EIP)都必须遵照中国大陆《电子信息产品污染控制标识要求》标准贴上环保使用期限(EFUP)标签。Barco产品所采用的EFUP标签(请参阅实例，徽标内部的编号使用于制定产品)基于中国大陆的《电子信息产品环保使用期限通则》标准。

All Electronic Information Products (EIP) that are sold within Chinese Mainland must comply with the “Electronic Information Products Pollution Control Labeling Standard” of Chinese Mainland, marked with the Environmental Friendly Use Period (EFUP) logo. The number inside the EFUP logo that Barco uses (please refer to the photo) is based on the “Standard of Electronic Information Products Environmental Friendly Use Period” of Chinese Mainland.

Image A-1

A.3 Production address

Factory

捷普科技(上海)有限公司

上海市田林路600号

邮编 : 200233

Made in information

The made in country is indicated on the product ID label on the product itself.

Production date

The month and year of production is indicated on the product ID label on the product itself.

A.4 Importers contact information

Contact

To find your local importer, contact Barco directly or one of Barco’s regional offices via the contact information given on Barco’s web site, www.barco.com.

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